

4401 Fair Lakes Court Fairfax, VA 22033 USA Phone: 1.703.818.9100 www.paceglobal.com

# **2009 Greenhouse Gas Emissions Inventory Report**

Prepared for:

# **Overseas Private Investment Corporation**

May 17, 2011

Setting the Pace in energy since 1976



# TABLE OF CONTENTS

Tables	3
INTRODUCTION	4
Background	4
Objective & Scope	4
Baseline Development	4
2009 Emissions Inventory	5
METHODOLOGY	6
2009 Initial Screen	6
Initial Short List	7
Tier A (Power Generation) Facility Inventory Estimates	9
Tier B Facility Inventory Estimates	9
Tier C Facility Inventory Estimates	9
Annual Review of Inventory Estimates	11
RESULTS	12
APPENDIX A	16
Tier A Projects – Based on Sponsor Provided Throughput	16
Tier A Projects – Based on Capacity (Throughput not Available)	22
Tier B Projects	33
Tier C Projects	38
APPENDIX B	40
Active Projects	40
APPENDIX C	64
Conversion Factors and Sources	64
APPENDIX D	65
Annotated Bibliography	65



# TABLES

Table 1:	Initial Short List – As of September 30 <sup>th</sup> 20107
Table 2:	Initial Short List of Tier C Projects
Table 3:	2009 OPIC GHG Emissions Inventory Estimates by Project



# INTRODUCTION

#### BACKGROUND

Pace Global Energy Services, LLC ("Pace Global") performed an independent analysis to quantify the greenhouse gas ("GHG") emissions directly attributable to Overseas Private Investment Corporation ("OPIC") supported projects. GHGs are atmospheric compounds that trap the sun's infrared radiation or heat. In excess quantities, GHGs are linked to numerous impacts to the global climate and the environment as a whole. Further, programs are being developed and implemented at regional and local levels to reduce GHG emissions from human generated sources.

### **OBJECTIVE & SCOPE**

This analysis aims to identify and estimate projects' emissions that produce over 25,000 short tons of carbon dioxide equivalent (CO2), were active OPIC projects as of September 30, 2010 and were produced using data available from project sponsors as supplied by OPIC.

## BASELINE DEVELOPMENT

To develop an initial baseline, Pace Global conducted a screen of OPIC supported projects for the 2007 calendar year and included only those emissions from direct, on site emission sources from operations. It did not include indirect emissions associated with purchased electricity or steam, chemical releases, or the past construction of facilities. After further analysis of environmental data and project descriptions, Pace Global narrowed this list to a short list of projects that had the potential to exceed the 100,000 short tons CO2 per annum from direct fossil fuel combustion (the threshold for year 2007 was 100,000 short tons CO2). The maximum Potential to Emit ("PTE") was then estimated for this short list of projects and is based on available project information, which varied by project, but included a combination of consumption data, throughput, generating capacity, relative project sizes, and an assumed operating capacity of 8,000 hours per year (unless otherwise noted). In order to support the accuracy of the estimates and assumptions and to ascertain 2007 operational emissions data, OPIC solicited verification from the individual project sponsors. The 2007 inventory consisted of project sponsor provided information where responses were received and Pace Global's estimates for the projects' maximum PTE for projects where sponsor feedback was not received at the time of reporting for the 2007 year inventory report (March 2009). The baseline 2007 OPIC inventory for projects exceeding 100,000 short tons CO2 per annum was 51,874,868 short tons CO2. Pace Global incorporated a 5% buffer to accommodate any minimal additional emissions that were not accounted for. In 2007 and 2008 Apache reported their emissions in relation to their equity share of the project (49%). OPIC accounts for 100% of a project's emissions regardless of equity share. In order to be consistent with OPIC's GHG accounting methodology, emission estimates for Apache in 2007 and 2008 were rectified. Hence, the baseline and 2008 estimates have been revised from those numbers reported in the 2007 and For 2008 Pace Global conducted a screen of GHG emissions from OPIC 2008 inventories. supported projects. Total GHG emissions for 2008 for projects emitting over 100,000 short tons CO2 were 35,022,836 short tons CO2. Pace Global incorporated a 5% buffer to accommodate any minimal additional emissions that were not accounted for.



## 2009 EMISSIONS INVENTORY

Pace Global replicated this process for the 2009 calendar year with a short list of projects that were active as of September 30, 2010, the close of the fiscal year. All projects active in 2008 and identified to be below the 25,000 short ton threshold for inclusion were excluded in the initial screen. The initial shortlist included 42 projects that had the potential to be major emissions sources. Included in the list were projects that were both new to the list in 2009 and active in 2008. Pace Global narrowed this list to 21 projects that exceeded the 25,000 short tons CO2 per annum threshold. Information requests were sent to project sponsors to validate 2009 emission inventory estimates. To support the accuracy of the estimates, OPIC solicited additional information and verification of project specific assumptions from the individual sponsors. The project sponsors had 30 days to reply to the solicitation with additional project details and 2009 operational emissions estimates. This feedback reflects OPIC's 2009 emissions inventory which includes emissions from all projects on the final short list. When sponsor feedback was unavailable, the 2008 estimate was used to reflect 2009 emissions. The estimated total for OPIC's 2009 GHG Inventory is 33,744,117 short tons CO2. Pace Global incorporated approximately a 4% buffer to accommodate any minimal additional emissions that were not accounted for.

This report presents the GHG emissions results for OPIC projects in 2009. Next year, Pace Global will review and update the emissions attributable to OPIC supported projects for the 2010 calendar year and identify and report differences from the emissions estimates presented in the initial inventory report herein.



# METHODOLOGY

### 2009 INITIAL SCREEN

For 2009, Pace Global screened all of OPIC's affiliated projects from the complete project list provided by OPIC. The scope of the analysis included emissions from the direct combustion of fossil fuels from projects that would result in over 25,000 short tons of CO2 emitted per year. Emissions associated with electricity usage, industrial processes, and/or refrigerants were excluded. Based on the criteria below, Pace Global developed a 'short list' of projects that warranted a more detailed analysis to determine whether or not the given projects exceeded the threshold for inclusion. The initial screen relied on the following criteria. (See, APPENDIX A, for the complete list of projects analyzed).

- Projects that were active as of September 30, 2010;
- Projects that were determined to emit over 100,000 short tons of CO2 per year through the analysis performed in the 2008 inventory;
- Projects that were determined to emit or have the potential to emit over 25,000 short tons CO2 per year through the additional analysis performed in the 2007 and 2008 inventories; and
- New projects with which OPIC was affiliated as of 2009 in the energy, oil & gas, transportation, mining, manufacturing, and construction sectors. These sectors were chosen as facilities in these sectors are of sufficient size to potentially directly emit over 25,000 short tons CO2 per year.

Projects in the finance/banking, insurance, and service sectors were omitted from further analysis because the majority of emissions from these sectors are attributed to electricity usage which is outside the scope of this study.

A total of 42 projects were included in the initial 'short list.' (See APPENDIX A, Table 4: Active Projects – As of September 30<sup>th</sup> 2010. This shortlist presents projects screened that were determined to have the potential to emit over 100,000 short tons of CO2.)



# **INITIAL SHORT LIST**

# Table 1: Initial Short List – As of September 30<sup>th</sup> 2010

Project Name		
FINANCE- New Project 2009	Country	Sector
AERIS HOLDING COSTA RICA S.A.	COSTA RICA	TRAN
AMERICAN MONOLITH LTD	GEORGIA	TRAN
AZURE POWER HARYANA PRIVATE LIMITED	INDIA	POWER
BRAVO ENERGY ARGENTINA SCA	ARGENTINA	MFR
BRAVO ENERGY MEXICO SRL DE CV	MEXICO	MFR
CASANOVO AFFORDABLE HOUSING FUND I, L.P.	LATIN AMERICA	CONS
CONTOURGLOBAL SOLUTIONS HOLDINGS LIMITED	ALL OPIC NATIONS	POWER
CSA-GRUPO JAREMAR (BUFINSA,INDASA,OLEPSA)	HONDURAS	MFR
DEXTER SAFETY & INDUSTRIAL PRODUCTS, INC.	MEXICO	TRAN
EQUITY CAPITAL MINING, LLC	AFGHANISTAN	MINE
INNOVIDA HOLDINGS LLC	HAITI	MFR
JOSHI TECHNOLOGIES / PARKO SERVICES, S.A.	COLOMBIA	MINE
PLAZA LOGISTICA S.R.L.	ARGENTINA	CONS
PREFABRICADOS	MEXICO	CONS
PT TUCAN PUMPCO SERVICES II	INDONESIA	MINE
PT. TUCAN PUMPCO SERVICES INDONESIA	INDONESIA	MINE
RODBLU PARTNERS CRP S.A.	COSTA RICA	CONS
SEAF SME DEBT FACILITY LLC (OUTSOURCING PERU	PERU	TRAN
SEAF SME DEBT FACILITY LLC (SUNSHINE EXPORT)	PERU AFGHANISTAN	AGRI MFR
TOWERSHARE (PVT) LTD. FINANCE- Included in 2009 Inventory	PAKISTAN	COMM
NEPC CONSORTIUM POWER LTD.(HARIPUR)	BANGLADESH	POWER
JOSHI TECHNOLOGIES / PARKO SERVICES, S.A.	COLOMBIA	MINE
PAITON ENERGY COMPANY	INDONESIA	POWER
AES JORDAN PSC	JORDAN	POWER
E.P. INTEROIL, LTD.	PAPUA NEW GUINEA	MFR
CSA-CORPORACION JOSE R. LINDLEY, S.A.	PERU	MFP
ADAPAZARI ELEKTRIK URETIM LTD. SIRKETI	TURKEY	POWER
DOGA ENERJI	TURKEY	POWER
GEBZE ELEKTRIK URETIM LTD SIRKETI	TURKEY	POWER
IZMIR ELEKTRIK URETIM LTD SIRKETI	TURKEY	POWER
LUKOIL RPK VYSOTSK	RUSSIA	MINE
	NOODIA	



Project Name		
INSURANCE- New Project 2009	Country	Sector
AMSTED-RAIL LLC	UKRAINE	MANUFACTURING
INSURANCE- Included in 2009 Inventory		
THE BAKU-TBILISI-CEYHAN PIPELINE COMPANY	AZERBAIJAN	ENERGY - OIL AND GAS ENERGY - OIL AND
FOXTROT INTERNATIONAL LDC	COTE DIVOIRE	GAS ENERGY - OIL AND
VARIOUS APACHE EGYPT CONCESSION SUBSIDIARIES	EGYPT	GAS ENERGY - OIL AND
WEST AFRICAN GAS PIPELINE COMPANY LIMITED	GHANA	GAS
GRENADA ELECTRICITY SERVICES LIMITED	GRENADA	ENERGY - POWER
AES NIGERIA BARGE LIMITED PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY	NIGERIA	ENERGY - POWER
("WAPDA")	PAKISTAN	MANUFACTURING
NAPOCOR	PHILIPPINES WEST BANK &	POWER
GAZA POWER GENERATING PRIVATE LIMITED COMPANY	GAZA	ENERGY - POWER

Funds- Included in 2009 Inventory

LATIN AMERICA POWER III FUNDS



After discussing and reviewing project details with OPIC for additional information regarding specific projects, Pace shortened the list to 21 projects that could potentially reach or surpass the emissions threshold for inclusion in the inventory. Pace Global vetted and finalized emission calculations for these projects and included them into the 2009 inventory. Only one of the new projects in the initial short list for 2009 was determined to have the potential to emit over the threshold for inclusion (Joshi Technologies / Parko Services).

# TIER A (POWER GENERATION) FACILITY INVENTORY ESTIMATES

Pace Global separated out fossil fuel fired power generation projects that emitted more than 100,000 short tons CO2 on the final 'short list.' Twelve of these projects were identified and referred to as 'Tier A projects.' The maximum PTE for Tier A projects was based on an operating capacity of 8,000 hours per year (unless otherwise noted), consumption data (if available), the facilities' power generating capacity (MW), and or specific estimates of GHG emissions provided by the project sponsor (if available). Overall for Tier A, emissions for 4 of the projects were calculated using throughput data, while four were calculated using generating capacity. The most accurate emissions profile is based on actual fuel consumption; however, this information was not available for all of Tier A projects. Therefore, when calculating emissions based on capacity (MW) and used a conversion efficiency factor obtained from the International Finance Corporation's Guidance Note 3. Other standard assumptions required to perform inventory calculations were primarily sourced from The Climate Registry's General Reporting Protocol. A complete list of data sources relied upon for this analysis is included in the Annotated Bibliography in APPENDIX D.

The data used in the calculations as well as the maximum PTE calculations are detailed in APPENDIX B.

# TIER B FACILITY INVENTORY ESTIMATES

Tier B projects are defined as facilities in the oil & gas, mining, transportation, manufacturing, or construction sectors with annual GHG emissions estimated to be above 100,000 short tons CO2. Five projects on the 'short list' were identified as Tier B facilities. Oil & gas sector project emissions were based on throughput, consumption data, and/or emissions data from similar facilities. Emissions from manufacturing projects were based on the energy requirements from similar facilities and/or processed volumes. All maximum PTE estimates assume an operating capacity of 8,000 hours per year unless otherwise noted. When emissions data from similar facilities was necessary to perform the calculation, the data was obtained from credible, publically available information sources. A complete list of data sources relied upon for this analysis is included in the Annotated Bibliography in APPENDIX D. The data used in the calculations as well as the estimated calculations are detailed in APPENDIX B.

# TIER C FACILITY INVENTORY ESTIMATES

OPIC accounted for emissions from projects emitting less than 100,000 short tons CO2 but greater than 25,000 short tons CO2 in this inventory. Initially, Pace Global conducted a screen of OPIC supported projects and developed a 'short list' of those projects likely to exceed an emissions threshold of 25,000 short tons CO2 per annum from direct emissions (Table 2). The initial screen excluded the following types of projects:



- Projects already known to exceed 100,000 short tons from the baseline inventory analysis;
- Projects in sectors not known to have emissions exceeding the threshold for inclusion, including: commercial, construction, tourism, agriculture, finance, service, and transportation;
- Projects determined to be under the threshold for inclusion.

Pace Global performed inventory calculations for projects included in the final shortlist based on project descriptions as well as publically available data and emissions factors (Appendix D). Appendix B presents projects and associated emissions that were included in the 25,000 ton inventory.

Below is a short list of original projects that were considered for Tier C. Many of these projects were included in the 2008 inventory. Yet, after evaluating emissions for 2009, Pace Global determined that four projects were to be included in Tier C. The reason for exclusion of the projects is described in Table 2 below. Ultimately, we found that the majority of these emissions were either deemed to have minimal emissions associated with them for 2009 or were inactive projects.

Project Name	Sector	Location	Status
Empresa Minera Manquiri S.A., Coeur D Alene Mines Corp	MINE	Bolivia	Below Threshold
the national power corporation, General Electric Energy Rentals Inc	POWER	Philippines	Below Threshold
Israel electric corporation LTD, Citibank NA on behalf of eligible financial institutions	OIL	Israel	Below Threshold
The powersource group LLC	POWER	Philippines	Inactive
Kidwell International Power Vietnam Company Limited, GE Energy Rentals Inc	POWER	Vietnam	Inactive
Zeta Gas De Centro America S.A., Texas Overseas Gas Corp	OIL	Guatemala	Inactive
GOLDHAM PTY LTD.T/A KALAHARI GAS CORPORATION	OIL	Botswana	Below Threshold
RPK-VYSOTSK "LUKOIL-II"	OIL	Russia	Included ir Tier C
PALCO SP.ZO.O.	MFR	Poland	Inactive
Maksan Manisa Mesrubat Kutulama Sanayi AS, Bank of New York	MFR	Turkey	Below Threshold
WBC-SFC ENTEGRE ORMAN URUNLERI SANAYI VE TIC	MFR	Turkey	Below Threshold
TRANSNATIONAL AUTOMOTIVE GROUP-CAMEROON S.A.	TRAN	Cameroon	Below Threshold
Joshi Technologies / Parko Services	MINE	Colombia	Included ir Tier C
CSA-CORPORACION JOSE R. LINDLEY, SA-2	MFR	Peru	Included in Tier C

#### Table 2: Initial Short List of Tier C Projects

Source: Pace and OPIC



## ANNUAL REVIEW OF INVENTORY ESTIMATES

Pace Global will review OPIC's portfolio annually to determine if projects should be removed or added to the inventory calculation. Pace Global will quantify the impacts of annual operational changes against the maximum PTE estimate and will utilize the above methodology to screen these additional projects to estimate emissions going forward.



# RESULTS

OPIC's 2009 GHG Inventory is 33,744,117 short tons CO2, based on sponsor feedback and maximum PTE when sponsor comments were unavailable.

Table 3:	2009 OPIC GHG Emissions Inventory Estimates by Project
----------	--

Tier A Projects								
Project Name	Location	Description	Capacity / Throughput	Fuel Type	Maximum PTE <sup>1</sup> (short tons CO2)	2007 Sponsor Reported Emissions Baseline (short tons CO2)	2008 Sponsor Reported Emissions Baseline (short tons CO2)	FINAL 2009 Emissions (short tons CO2)
Adapazari Elektrik Uretim	Turkey	Combined Cycle	777 MW	Natural Gas	2,706,499	2,106,754	2,106,754	2,441,657
AES Jordan	Jordan	Combined Cycle	10,103,603 MMBtu/yr	Natural Gas	1,288,809	N/A	590,940	1,318,130 <sup>2</sup>
AES Nigeria	Nigeria	Engine-Based Power Generation	270 MW	Natural Gas	1,603,307	1,166,398	1,341,157	988,271
Doga Enerji	Turkey	Combined Cycle	180 MW	Natural Gas	816,057	740,756	740,762	653,417
Gaza Private Generating PLC	Gaza	Combined Cycle	136.4 MW	Natural Gas	487,657	293,804	303,535	291,800
Gebze Elektrik Uretim	Turkey	Combined Cycle	1554 MW	Natural Gas	5,412,998	4,121,923	4,121,923	4,794,979
Grenada Electricity Services (WRB)	Grenada	Engine-Based Power Generation	18 MW	Diesel (Fuel Oil)	104,604	114,571	121,156	141,127
Habibullah Coastal Power	Pakistan	Combined Cycle	140 MW	Natural Gas	487,658	447,880	447,880	Not Active
Isagen SA	Columbia	Combined Cycle	300 MW	Natural Gas	696,654	203,010	-	300,706
Izmir Elektrik Uretim	Turkey	Combined Cycle	1554 MW	Natural Gas	5,412,998	4,694,380	4,694,380	4,300,376
Jorf Lasfar Energy	Morocco	Steam Boiler	1356 MW	Coal	14,268,496	14,268,496	Not Active	Not Active
NEPC Consortium Power	Bangladesh	Engine-Based Power Generation	313,105 MMBtu/yr	Natural Gas & HFO	383,159	245,795	343,581	255,734
Paiton Energy	Indonesia	Steam Boiler	1220 MW	Coal	7,938,380	9,553,044	9,553,044	9,624,125
Pakistan Water & Power Authority	Pakistan	Combined Cycle	150 MW	Natural Gas	522,490	522,490	522,490	283,937 <sup>3</sup>
Termovalle SCA	Columbia	Combined Cycle	205 MW	Natural Gas	714,070	-	-	223,983 <sup>4</sup>
Trakya Elektrik Uretim	Turkey	Combined Cycle	478 MW	Natural Gas	1,818,912	1,747,956	Not Active	Not Active

<sup>&</sup>lt;sup>1</sup> Note that the maximum PTE was calculated for projects that had detailed data as well as for those with spare data. For those projects with minimal data available, the maximum PTE may be less than the 2007 emissions for which more information became available from the project sponsors. <sup>2</sup> Net energy generated increased from 10,103,603 in 2008 to 22,536,748 MMBtu in 2009. This generation increase was responsible for the emissions increase. <sup>3</sup> 2009 emissions are significantly lower due to fewer reported operating hours.

<sup>&</sup>lt;sup>4</sup> 2009 emissions are significantly higher due to increased reported operating hours



			<u>Tier B Proj</u>	<u>ects</u>				
Project Name	Location	Description	Capacity / Throughput	Fuel Type	Maximum PTE (short tons CO2)	2007 Sponsor Reported Emissions Baseline (short tons CO2)	2008 Sponsor Reported Emissions Baseline (short tons CO2)	FINAL 2009 Emissions (short tons CO2)
Accroven SRL	Venezuela	NGL Facility	800 MMscfd	Natural Gas	998,677	998,677	445,832	Not Active
Baku-Tblisi-Ceyhan Pipeline	Azerbaijan	Crude Oil Pipeline	1 million barrels crude oil	Natural Gas & Diesel	699,034	707,672	707,672	787,577
E.P. Interoil	Papua New Guinea	Crude Oil Refinery	32,500 barrels/day	Crude Oil	802,469	392,296	103,247	Tier C
Equate Petrochemical	Kuwait	Petrochemical Facility	1540 MMBtu/hr	Natural Gas	720,573	720,573	680,311	Not Active
Foxtrot International	Cote d'Ivoire	Gas Extraction & Pipeline	100 MMscfd	Natural Gas	270,804	104,484	104,484	104,484
Natural Gas Liquids II Financing	Nigeria	NGL Facility	19.5 MMscfd	Natural Gas	390,806	244,048	244,048	Not Active
Various Egypt Subsidiaries (Apache) <sup>5</sup>	Egypt	Oil/Gas Extraction & Processing	29,934,702 bbl/yr & 89,910 MMscf/yr	Oil & Natural Gas	2,429,543	3,071,933	3,244,190	3,294,654
West Africa Gas Pipeline	Ghana	Gas Compression & Transmission	190 MMscfd	Natural Gas	244,728	Not Active	Not Active	244,728
Wilpro Energy Services (El Furrial)	Venezuela	Gas Compression	60 MW	Natural Gas	289,106	289,106	289,106	Not Active
Wilpro Energy Services (Pigap)	Venezuela	Gas Compression	100 MW	Natural Gas	507,923	571,090	571,090	Not Active

<sup>&</sup>lt;sup>5</sup> In 2007 and 2008 Apache reported their emissions in relation to their equity share of the project (49%). OPIC accounts 100% of a project's emissions regardless of equity share. As a result, emissions data will more than double in comparison to the project sponsor data in order to calibrate the inventory according to OPIC standards.



Tier C Projects						
Project Name	Location	Description	FINAL 2009 Emissions (short tons CO2)			
Coeur D Alene Mines Corp	Bolivia	Mine	-			
E.P. InterOil	Papua New Guinea	Oil	79,709			
Israeli Electric	Israel	Oil	-			
Jose Lindley	Peru	MFR	25,000			
Kalahari Gas Corporation	Botswana	Oil	-			
Kidwell International	Vietnam	Power	Not Active			
Lukoil Rpk Vysotsk	Russia	Oil	76,339			
Maksan Manisa	Turkey	MFR	-			
National Power Corp	Philippines	Power	-			
Palco	Poland	MFR	Not Active			
Joshi Technologies / Parko Services	Colombia	Oil	30,398			
The Powersource Group	Philippines	Power	Not Active			
Transnational Automotive	Cameroon	Tran	-			
Wbc-Sfc Entergre	Turkey	MFR	-			
Zeta Gas	Guatemala	Oil	Not Active			



<u>Totals</u>			
	2007 Sponsor Reported Emissions Baseline (short tons CO2)	2008 Sponsor Reported Emissions Baseline (short tons CO2)	FINAL 2009 Emissions (short tons CO2)
Tier A:	40,227,257	24,887,602	25,618,242
Tier B:	7,099,879	6,389,980	4,431,443
Tier C:	-	-	211,446
Subtotal:	47,327,136	31,277,582	30,261,131
Latin America Power III Funds <sup>6</sup> :	2,077,500	2,077,500	2,077,500
5% Buffer for Additional Sources:	2,470,232	1,667,754	-
4% Buffer for Additional Sources:	-	-	1,405,486 <sup>7</sup>
TOTAL:	51,874,868	35,022,836	33,744,117

<sup>&</sup>lt;sup>6</sup>Per agreement between Latin American Power III and OPIC, the Fund agreed to "not make an investment in a Portfolio Company if after such investment, the assets and operations of all Portfolio Companies then held by the Fund would emit (in the aggregate and on a calendar year basis) in excess of 2,077,500 short tons CO2 as calculated in accordance with the IPCC".

<sup>&</sup>lt;sup>7</sup>Buffer included 4.35% plus Tier C equaling 5%



# APPENDIX A

This Appendix contains the inputs, sources of those inputs, and calculations utilized to estimate the emissions for each of the projects in OPIC's 2009 GHG Inventory. If sponsor feedback was submitted, the 2007 and 2008 operational emissions estimates were also included.

# TIER A PROJECTS – BASED ON SPONSOR PROVIDED THROUGHPUT

## AES Jordan

Maximum Potential to Emit Estimate

AES Jordan's emissions estimate of **1,288,809 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	370 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from	-	Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 1,288,809 short tons CO2 per year

370MW \* <u>1000kW</u> \* <u>8000hr</u> \* <u>395gCO2</u> \* <u>0.0000011023 short tons</u> MW yr kWh g

2007 Operational Emission Estimate Based On Sponsor Feedback

AES Jordan was under construction and not operational during 2007. Since emissions from construction would be below the 100,000 short ton threshold this project has been omitted from the 2007 inventory.

2008 Operational Emission Estimate Based On Sponsor Feedback

AES Jordan's emissions estimate for 2008 of **590,940 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Sponsor
Net Energy Generated	10,103,603 MMBtu	Project Sponsor
Emission Factor	53.06 kg CO2/MMBtu	TCR, Table 12.1

Consumption based emissions = 590,940 short tons CO2 per year

10,103,603 MMBtu \* <u>53.06 kg CO2</u> \* <u>0.0011023 short tons</u> MMBtu kg



#### 2009 Operational Emission Estimate Based On Sponsor Feedback

AES Jordan's emissions estimate for 2009 of **1,318,130 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Sponsor
Net Energy Generated	22,536,748 MMBtu	Project Sponsor
Emission Factor	53.06 kg CO2/MMBtu	TCR, Table 12.1

Consumption based emissions = 1,318,130 short tons CO2 per year

22,536,748 MMBtu \* <u>53.06 kg CO2</u> \* <u>0.0011023 short tons</u> MMBtu kg

## Doga Enerji

Maximum Potential to Emit Estimate

Doga Enerji's emissions estimate of **816,057 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	180 MW	Project Description
Consumption	48,000 m3/hour	Project Description
Heat Content Natural Gas	1,029 Btu/scf	The Climate Registry, Table 12.1
Emission Factor	53.06kg CO2/MMBtu	The Climate Registry, Table 12.1
Conversion Factor	251.98 cal/Btu	Perry's Chemical Engineering Hand
		Book, Table 1-7

Consumption based maximum potential to emit = 816,057 short tons CO2 per year

<u>48000m3</u> * <u>8</u>	000hr *	<u>scf</u>	_* <u>1029Btu</u>	* <u>MMBtu</u>	* <u>53.06 kgCO2</u>	* 0.0011023 short tons
hr	yr	0.02832m3	scf	1000000Btu	MMBtu	kg

#### 2007 Operational Emission Estimate Based On Sponsor Feedback

Doga Enerji's 2007 operational emissions of **740,756 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	180 MW	Project Description
Annual Fuel Consumption	347,644,124 Sm3	Project Actual Data 2007
Heat Content Natural Gas	9180 kcal/Sm3	Agreement with local Natural Gas supplier (BOTAS)
Emission Factor	53.06kg CO2/MMBtu	The Climate Registry, Table 12.1

Consumption based emissions = 740,756 short tons CO2 per year



#### <u>347644124 Sm3</u> \* <u>9180 kcal</u> \* <u>1 Btu</u> \* <u>1000 cal</u> \* <u>MMBtu</u> \* <u>53.06 kgCO2</u> \* <u>0.0011023 short tons</u> yr Sm3 951.98 cal kcal 1000000Btu MMBtu kg

<u>2008 Operational Emission Estimate Based On Sponsor Feedback</u> Per Sponsor feedback, emissions and operational factors have not changed.

#### 2009 GHG Emissions Estimate

Doga Enerji's operational emissions of **653,417 short tons** were calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	180 MW	Project Description
Annual Fuel Consumption	300,402,594 Sm3	Project Actual Data 2009
Heat Content Natural Gas	9,371 kcal/Sm3	Agreement with local Natural Gas supplier (BOTAS)
Emission Factor	53.06kg CO2/MMBtu	The Climate Registry, Table 12.1

Consumption based emissions = 653,417 short tons CO2 per year

<u>300,402,594 Sm3</u> \* <u>9,371 kcal</u> \* <u>1 Btu</u> \* <u>1000 cal</u> \* <u>MMBtu</u> \* <u>53.06 kgCO2</u> \* <u>0.0011023 short tons</u> yr Sm3 251.98 cal kcal 1000000Btu MMBtu kg

# Grenada Electricity Services (WRB)

#### Maximum Potential to Emit Estimate

Grenada Electricity Services (WRB)'s emissions estimate of **104,604 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Diesel (Fuel Oil)	Project Description
Capacity	18 MW	Project Description
Emission Factor for	659 g CO2/kWh	International Finance
Emissions Estimate from	-	Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 104,604 short tons CO2 per year

#### 2007 Operational Emission Estimate Based On Sponsor Feedback

Grenada Electricity Services (WRB)'s 2007 operational emissions of **114,571 short tons CO2** was calculated using the following information:



Data	Value	Source
Fuel Type	Diesel (Fuel Oil)	Project Description
Fuel Consumption	10,821,042 gallons	Project Sponsor
Heat Rate	8013 Btu/kWh	Project Sponsor
Diesel LHV	70302 Btu/kg	Project Sponsor
Energy Generated	117,323,661 kWh	Project Sponsor
Emissions Factor	73.15 kg CO2/MMBtu	The Climate Registry, Table
	-	12-1
2007 Emissions	114,571 short tons	Project Sponsor

Consumption based emissions = 114,571 short tons CO2 per year

# 2008 Operational Emission Estimate Based On Sponsor Feedback

Grenada Electricity Services (WRB)'s 2008 operational emissions of **121,156 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Diesel (Fuel Oil)	Project Description
Fuel Consumption	11,436,588 gallons	Project Sponsor
Heat Rate	8006 Btu/kWh	Project Sponsor
Diesel LHV	40306 Btu/kg	Project Sponsor
Energy Generated	187,689,464 kWh	Project Sponsor
Emissions Factor	73.15 kg CO2/MMBtu	The Climate Registry, Table 12-1
2008 Emissions	121,156 short tons	Project Sponsor

Consumption based emissions = 121,156 short tons CO2 per year

#### 2009 Operational Emission Estimate Based On Sponsor Feedback

Grenada Electricity Services (WRB)'s 2009 operational emissions of **141,127 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Diesel (Fuel Oil)	Project Description
Operating Hours	8,760	Project Description
Fuel Consumption	11,905,997 US gallons	Project Sponsor
Heat Rate	8,458 kJ/kWh or 8,016 BTU/kWh	Project Sponsor
Diesel LHV	42,400 kJ/kg or 40,188 BTU/kg	Project Sponsor
Energy Generated	194,279,333 kWh	Project Sponsor
Emissions Factor	659 grams CO2	The Climate Registry, Table 12-1

Consumption based emissions = 141,127 short tons CO2 per year



# 659 gCO2 \* 194,279,333 kWh \* 0.0000011023 short tons

Yr

kg

# Paiton Energy

Maximum Potential to Emit Estimate

Paiton Energy's emissions estimate of 7,938,380 short tons CO2 was calculated using the following information:

Data	Value	Source
Fuel Type	Coal	Project Description
Capacity	1,200 MW	Project Description
Consumption	4,300,000 short tons/yr	Project Description
Coal Type	Sub-Bituminous	IEA, Coal in Indonesia in 2006
Heat Content Coal	17.25 MMBtu/short ton	The Climate Registry, Table 12.1
Emission Factor	97.09 kg CO2/MMBtu	The Climate Registry, Table 12.1

Consumption based maximum potential to emit = 7,938,380 short tons CO2 per year

4,300,000 short tons '	* <u>17.25 MMBtu</u> *	<sup>*</sup> <u>97.09 kgCO2</u> *	0.0011023 short tons
yr	short ton	MMBtu	kg

2007 Operational Emission Estimate Based On Sponsor Feedback Paiton Energy's 2007 operational emissions of 9,553,044 short tons CO2 was calculated using the following information:

Data	Value	Source
Fuel Type	Coal	Project Description
Capacity	1,200 MW	Project Description
Consumption	4,694,238,000 kg	Project Sponsor
Coal Type	Sub-Bituminous	IEA, Coal in Indonesia in 2006
Heat Content Coal	17.25 MMBtu/short ton	The Climate Registry, Table 12.1
Emission Factor	97.09 kg CO2/MMBtu	The Climate Registry, Table 12.1

Consumption based emissions = 9,553,044 short tons CO2 per year

4,694,238,000 kg \* short ton \* 17.25 MMBtu \* 97.09 kg CO2 \* short ton 907.18 ka short ton 907.18 ka MMBtu

2008 Operational Emission Estimate Based On Sponsor Feedback Sponsor provided data 2010 data and not 2008. As a result, the 2008 estimate defaults to 2007 data.

2009 Operational Emission Estimate Based On Sponsor Feedback

Paiton Energy's 2009 operational emissions of 9,624,125 short tons CO2 was calculated using the following information:



Data	Value	Source
Fuel Type	Coal	Project Description
Capacity	1,220 MW	Project Description
Consumption	4,505,417,000 kg	Project Sponsor
Coal Type	Sub-Bituminous	IEA, Coal in Indonesia in 2006
Heat Content Coal	5,077 kcal/kg	The Climate Registry, Table 12.1
Moisture as Received	0.255	2009 yearly average
Ash as Received	0.023	2009 yearly average
C(ultimate analysis)	0.732	2009 yearly average
CO2 Molecular Weight	44	EPA
C Atomic Weight	12	EPA

Consumption based emissions = 9,624,125 short tons CO2 per year

(4,505,417,000 kg \* 44/12 \* 0.732 \* (1-(0.255+0.023))) \* 0.0011023 short ton

kg



# TIER A PROJECTS – BASED ON CAPACITY (THROUGHPUT NOT AVAILABLE)

#### Adapazari Elektrik Uretim

Maximum Potential to Emit Estimate

Adapazari Elektrik Uretim's emissions estimate of **2,706,499 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	777 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from		Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 2,706,499 short tons CO2 per year

777MW \* <u>1000kW</u> \* <u>8000hr</u> \* <u>395gCO2</u> \* <u>0.0000011023 short tons</u> MW yr kWh g

2007 Operational Emission Estimate Based On Sponsor Feedback

Adapazari Elektrik Uretim's 2007 operational emissions of **2,106,754 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	777 MW	Project Description
2008 Emissions	1,911,247.2 metric tonnes	Project Sponsor

For the purpose of this baseline calculation, we are assuming the 2007 operating year was similar to the 2008 operating year for which emissions were provided; therefore 2007 operational emissions = 2,106,754 short tons CO2 per year

1,911,247.2 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

2008 Operational Emission Estimate Based On Sponsor Feedback

Sponsor feedback provided last year for 2007 also was applicable for 2008. As a result, there is no change.

2009 Operational Emission Estimate Based On Sponsor Feedback

Adapazari Elektrik Uretim's 2009 operational emissions of **2,441,657 short tons CO2** was calculated using the following information:



Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	777 MW	Project Description
2008 Emissions	2,215,071 metric tonnes	Project Sponsor

Capacity based emissions = 2,441,657 short tons CO2

2,215,071 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

## AES Nigeria Barge

Maximum Potential to Emit Estimate

AES Nigeria Barge's emissions estimate of **1,603,307 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	270 MW	Project Description
Consumption	80 Mcf/day	Project Description
Heat Content Natural Gas	1,029 Btu/scf	The Climate Registry, Table 12.1
Emission Factor	53.06kg CO2/MMBtu	The Climate Registry, Table 12.1

Consumption based maximum potential to emit = 1,603,307 short tons CO2 per year

<u>80Mcf</u> \* <u>333days</u> \* <u>1029Btu</u> \* <u>53.06 kgCO2</u> \* <u>0.0011023 short tons</u> day yr scf MMBtu kg

2007 Operational Emission Estimate Based On Sponsor Feedback

AES Nigeria Barge's 2007 operational emissions of **1,166,398 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	270 MW	Project Description
Consumption	58.165 Mcf/day	Project Sponsor
Emission Factor	53.06kg CO2/MMBtu	The Climate Registry, Table 12.1

Consumption based emissions = 1,166,398 short tons CO2 per year

58.165Mcf	* <u>333days</u> *	<u>1029Btu</u>	* <u>53.06 kgCO2</u> *	* 0.0011023 short tons
day	yr	scf	MMBtu	kg

#### 2008 Operational Emission Estimate Based On Sponsor Feedback

AES Nigeria Barge's 2008 operational emissions of **1,341,157 short tons CO2** was calculated using the following information:



Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	270 MW	Project Description
Consumption	66.92 Mcf/day	Project Sponsor
Emission Factor	53.06kg CO2/MMBtu	The Climate Registry, Table 12.1

Consumption based emissions = 1,341,157 short tons CO2 per year

66.92 Mcf	* <u>333days</u> *	<u>1029Btu</u>	* <u>53.06 kgCO2</u> *	* 0.0011023 short tons
day	yr	scf	MMBtu	kg

2009 Operational Emission Estimate Based On Sponsor Feedback

AES Nigeria Barge's 2009 operational emissions of **988,271 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	270 MW	Project Description
Total Heat Input	16,896,970 MMBtu	Project Sponsor
Emission Factor	53.06kg CO2/MMBtu	The Climate Registry, Table 12.1

Capacity based emissions = 988,271 short tons CO2 per year

16,896,970 MMBtu \*<u>53.06 kgCO2</u> \* <u>0.0011023 short tons</u> MMBtu kg

#### Gebze Elektrik Uretim

#### Maximum Potential to Emit Estimate

Gebze Elektrik Uretim's emissions estimate of **5,412,998 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	1554 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from	-	Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 5,412,998 short tons CO2 per year

#### 2007 Operational Emission Estimate Based On Sponsor Feedback

Gebze Elektrik Uretim's 2007 operational emissions of **4,121,923 short tons CO2** was calculated using the following information:



Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	1554 MW	Project Description
2008 Emissions	3,739,408.4 metric tonnes	Project Sponsor

For the purpose of this baseline calculation, we are assuming the 2007 operating year was similar to the 2008 operating year for which emissions were provided; therefore 2007 operational emissions = 4,121,923 short tons CO2 per year.

3,739,408.4 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

<u>2008 Operational Emission Estimate Based On Sponsor Feedback</u> Per Sponsor feedback, emissions and operational factors for 2008 are the same as 2007.

#### 2009 Operational Emission Estimate Based On Sponsor Feedback

Gebze Elektrik Uretim's 2009 operational emissions of **4,794,979 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	1554 MW	Project Description
2009 Emissions	4,350,005 metric tones	Project Sponsor

Capacity based maximum potential to emit = 4,794,979 short tons CO2 per year

4,350,005 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

### Pakistan Water & Power Development Authority

Maximum Potential to Emit Estimate

Pakistan Water & Power Development Authority's emissions estimate of **522,490 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	150 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from	-	Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 522,490 short tons CO2 per year

150MW \* <u>1000kW</u> \* <u>8000hr</u> \* <u>395gCO2</u> \* <u>0.0000011023 short tons</u> MW yr kWh g



2007 Operational Emission Estimate Based On Sponsor Feedback Per Sponsor feedback, there are no changes to the maximum potential to emit estimate.

# 2008 Operational Emission Estimate Based On Sponsor Feedback

Per Sponsor feedback, emissions and operational factors have not changed.

#### 2009 Operational Emission Estimate Based On Sponsor Feedback

Pakistan Water & Power's 2009 operational emissions of **283,937 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	150 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from		Corporation, Guidance Note
Capacity		3, Annex A section A-(i)
Operating Hours	4,347 hours	Project Description

Capacity based emissions = 283,937 short tons CO2 per year.

257,588 metric tonnes \* <u>short ton</u> 0.9072 metric tones

# Termovalle SCA

#### Maximum Potential to Emit Estimate

Termovalle SCA's emissions estimate of **714,070 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	205 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from	-	Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 714,070 short tons CO2 per year

205MW \* <u>1000kW</u> \* <u>8000hr</u> \* <u>395 gCO2</u> \* <u>0.0000011023 short tons</u> MW yr kWh g

<u>2007 Operational Emission Estimate Based On Sponsor Feedback</u> Per Sponsor feedback, emissions were below the 100,000 short tons CO2 threshold and thus were not included.

<u>2008 Operational Emission Estimate Based On Sponsor Feedback</u> Per Sponsor feedback, emissions were below the 100,000 short tons CO2 threshold and thus were not included.



#### 2009 Operational Emission Estimate Based On Sponsor Feedback

Termovalle SCA's 2009 operating emissions of **223,983 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas / Liquid Fuel	Project Description
Capacity	89,241,050 kWh (Liquid Fuel) 365,534,360 kWh (Natural Gas)	Project Description
2008 Operating Hours	517.74 hrs	Project Sponsor
Emission Factor for	395 g CO2/kWh using Natural	International Finance
Emissions Estimate from	Gas	Corporation, Guidance Note
Capacity		3, Annex A section A-(i)
Emission Factor for	695 g CO2/kWh using Liquid	International Finance
Emissions Estimate from	Fuel	Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

89,241 MW \* 1000kW \* <u>2130h</u>r \* <u>659gCO2</u> \* <u>.0000011023 short tons</u> MW yr kW g 365,534MW \* 1000kW \* <u>545hr</u> \* <u>359gCO2</u> \* <u>.0000011023 short tons</u> MW yr kW g

# Isagen SA

Maximum Potential to Emit Estimate

Isagen SA's emissions estimate of **696,654 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	200 MW + 100MW from steam	Project Description
	turbine	
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from		Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 696,654 short tons CO2 per year

#### 2007 Operational Emission Estimate Based On Sponsor Feedback

Isagen SA's 2007 operational emissions of **203,010 short tons CO2** was calculated using the following information:



Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	300 MW	Project Description
2007 Emissions	184,171 metric tonnes	Project Sponsor

Capacity based emissions = 203,010 short tons CO2 per year

184,171 metric tonnes \* <u>short tons</u> 0.9072 metric tonnes

<u>2008 Operational Emission Estimate Based On Sponsor Feedback</u> Per Sponsor feedback, emissions were below the 100,000 short tons CO2 threshold and thus were not included.

#### 2009 Operational Emission Estimate Based On Sponsor Feedback

Isagen SA's 2009 operational emissions of **300,706 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	300 MW	Project Description
2009 Emissions	272,800 metric tonnes	Project Sponsor

Capacity based emissions = 300,706 short tons CO2 per year

272,800 metric tonnes \* <u>short tons</u> 0.9072 metric tonnes

### Izmir Elektrik Uretim

Maximum Potential to Emit Estimate

Izmir Elektrik Uretim's emissions estimate of **5,412,998 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	1554 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from	_	Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 5,412,998 short tons CO2 per year

1554MW \* <u>1000kWh</u> \* <u>8000hr</u> \* <u>395gCO2</u> \* <u>0.0000011023 short tons</u> MWh yr kWh g



#### 2007 Operational Emission Estimate Based On Sponsor Feedback

Izmir Elektrik Uretim's 2007 operational emissions of **4,694,380 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	1554 MW	Project Description
2008 Emissions	4,258,741.3 metric tones	Project Sponsor

For the purpose of this baseline calculation, we are assuming the 2007 operating year was similar to the 2008 operating year for which emissions were provided; therefore 2007 operational emissions = 4,694,380 short tons CO2 per year.

4,258,741.3 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

<u>2008 Operational Emission Estimate Based On Sponsor Feedback</u> Per Sponsor feedback, emissions and operational factors were the same as 2007.

#### 2009 Operational Emission Estimate Based On Sponsor Feedback

Izmir Elektrik Uretim's 2009 operational emissions of **4,300,376 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	1554 MW	Project Description
2009 Emissions	3,901,301 metric tones	Project Sponsor

Capacity based emissions = 4,300,376 short tons CO2 per year

3,901,301 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

# Gaza Private Generating PLC

#### Maximum Potential to Emit Estimate

Gaza Private Generating PLC's emissions estimate of **487,657 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	140 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from		Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 487,657 short tons CO2 per year



#### 140MW \* <u>1000kW</u> \* <u>8000hr</u> \* <u>395 gCO2</u> \* <u>0.0000011023 short tons</u> MW yr kWh g

#### 2007 Operational Emission Estimate Based On Sponsor Feedback

Gaza Private Generating PLC's 2007 operational emissions of **293,804 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	136.4 MW	Project Sponsor
2007 Emissions	266,539 metric tonnes	Project Sponsor

Capacity based emissions = 293,804 short tons CO2 per year

266,539 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

2008 Operational Emission Estimate Based On Sponsor Feedback

Gaza Private Generating PLC's 2008 operational emissions of **303,535 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	136.4 MW	Project Sponsor
2008 Emissions	275,367 metric tonnes	Project Sponsor

Capacity based emissions = 303,535 short tons CO2 per year

275,367 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

2009 Operational Emission Estimate Based On Sponsor Feedback

Gaza Private Generating PLC's emissions estimate of **291,800 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	LFO No.2	Project Description
Capacity	80 MW (2009 Capacity)	Project Sponsor
2008 Emissions	275,367 metric tonnes	Project Sponsor

Capacity based emissions = 291,800 short tons CO2 per year

275,367 metric tonnes \* <u>short ton</u> 0.9072 metric tones



### NEPC Consortium Power

#### Maximum Potential to Emit Estimate

NEPC Consortium Power's emissions estimate of **383,159 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	110 MW	Project Description
Emission Factor for	395 g CO2/kWh	International Finance
Emissions Estimate from		Corporation, Guidance Note
Capacity		3, Annex A section A-(i)

Capacity based maximum potential to emit = 383,159 short tons CO2 per year

110MW \* <u>1000kW</u> \* <u>8000hr</u> \* <u>395gCO2</u> \* <u>0.0000011023 short tons</u> MW yr kWh g

2007 Operational Emission Estimate Based On Sponsor Feedback

NEPC Consortium Power's 2007 operational emissions of **245,795 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Capacity	110 MW with average dispatch of 70.565 MW	Project Sponsor
2007 Emissions	222,985 metric tonnes	Project Sponsor

Capacity based emissions = 245,795 short tons CO2 per year

222,985 metric tonnes \* <u>short ton</u> 0.9072 metric tones

<u>2008 Operational Emission Estimate Based On Sponsor Feedback</u> NEPC Consortium Power's 2008 operating emissions of **343,581 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas & HFO	Project Sponsor
Heat Content (HFO)	363,184 MMBtu / yr	Project Sponsor
Heat Content (NatGas)	5,335,005 MMBtu / yr	Project Sponsor

Capacity based emissions = **343,581 short tons CO2** per year

363,184 MMBtu \* <u>78.80 kg CO2</u> \* <u>0.0011023 short tons</u> MMBtu kg ★ 5,335,005 MMBtu \* <u>53.06 kg CO2</u> \* <u>0.0011023 short tons</u> MMBtu kg



#### 2009 Operational Emission Estimate Based On Sponsor Feedback

NEPC Consortium Power's 2009 operating emissions of **255,734 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas & HFO	Project Sponsor
Heat Content (HFO)	313,105 MMBtu / yr	Project Sponsor
Heat Content (NatGas)	3,907,428 MMBtu / yr	Project Sponsor

Capacity based emissions = 255,734 short tons CO2 per year



# TIER B PROJECTS

#### Baku-Tblisi-Ceyhan Pipeline

Maximum Potential to Emit Estimate

The Baku-Tblisi-Ceyhan Pipeline's emissions estimate of **699,034 short tons CO2** was calculated for emissions related to the combustion of natural gas and diesel in the transportation of crude oil through the pipeline. We assume that the 180 Btu per short ton of crude transport per mile energy requirement is evenly split between natural gas and diesel. Baku's emission estimate is based on the following information:

Data	Value	Source
Fuel Type used for	Natural Gas and Diesel (dual fuel)	Project Description
Transport		
Pipeline Throughput	1 million barrels crude oil	Project Description
Pipeline Length	1,760 km	Project Description
Conversion Factors	1.6093 km/mile	EPA AP 42, p.A-7
	7.3 lbs/gal (density of crude)	
Energy Required for	180 Btu/short ton crude oil per mile	Trans Alaska Pipeline
Pipeline Transport (Crude)	(for ~40in. diameter pipeline)	EIS, p. 4.9-2
Emissions Factors	53.06 kg CO2/MMBtu (natural gas)	The Climate Registry,
	73.15 kg CO2/MMBtu (diesel)	Table 12.1

Maximum potential to emit = 699,034 short tons CO2 per year

<u>1000000barrels</u> \* <u>333day</u> \* <u>7.3lbs</u> \* <u>42gal</u> \* <u>short ton</u> = 51,048,900 short tons crude/yr dav vr gal barrel 2000lbs 51048900short tons crude \* 1760km \* mile \* 180Btu \* MMBtu = 10,049,271 MMBtu/yr 1.6093km short ton-mile 100000Btu yr <u>10049271MMBtu</u> \* <u>73.15 kg CO2</u> \* <u>0.0011023 short tons</u> \* 0.5 = 405,153 short tons CO2/yr from diesel yr MMBtu ka <u>10049271MMBtu</u> \* <u>53.06 kg CO2</u> \* <u>0.0011023 short tons</u> \* 0.5 = 293,881 short tonsCO2/yr from nat. gas yr MMBtu kg

<u>2007 Operational Emission Estimate Based On Sponsor Feedback</u> The Baku-Tblisi-Ceyhan Pipeline's 2007 operational emissions of **707,672 short tons CO2** was calculated using the following information:

Data	Value	Source
2008 Emissions	642,000 metric tonnes	Project Sponsor

For the purpose of this baseline calculation, we are assuming the 2007 operating year was similar to the 2008 operating year for which emissions were provided; therefore 2007 operational emissions = 707,672 short tons CO2 per year



642,000 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

2008 Operational Emission Estimate Based On Sponsor Feedback Per Sponsor feedback, emissions and operational factors did not change from 2007 to 2008.

#### 2009 Operational Emission Estimate Based On Sponsor Feedback

The Baku-Tblisi-Ceyhan Pipeline's 2009 operational emissions of **787,577 short tons CO2** was calculated using the following information:

Data	Value	Source
2009 Emissions	714,490 metric tonnes	Project Sponsor

For the purpose of this calculation, we are assuming the 2009 operating year was similar to the 2007-2008 operating year for which emissions were provided. 2009 operational emissions = 787,577 short tons CO2 per year.

714,490 metric tonnes \* <u>short ton</u>

0.9072 metric tonnes

## Foxtrot International

#### Maximum Potential to Emit Estimate

Foxtrot International's emissions estimate of **270,804 short tons CO2** was calculated accounting for both combustion emissions from the compression and transmission of natural gas as well as fugitive emissions using the following information. Additionally, an estimate of platform emissions was provided in the project description and incorporated into the emissions total.

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Pipeline	100 MMscfd	Project Description
Throughput		
Platform Emissions	142,000 short tons CO2e	Project Description
Emissions Factors	3439 lbs CO2 per MMscfd from combustion 4297 lbs CO2 per MMscfd from fugitive	U.S. EIA and EPA GHG Inventory, Tables 3-34 &
		3-36

Maximum potential to emit = 270,804 short tons CO2 per year

 $\frac{100 \text{ MMscf}}{\text{day}} * \frac{333 \text{ day}}{\text{yr}} * \frac{3439 \text{ lbs CO2}}{\text{MMscf}} * \frac{\text{short ton}}{2000 \text{ lbs}} = 57,259 \text{ short tons CO2/yr (combustion)}$   $\frac{100 \text{ MMscf}}{\text{day}} * \frac{333 \text{ day}}{\text{yr}} * \frac{4297 \text{ lbs CO2}}{\text{MMscf}} * \frac{\text{short ton}}{2000 \text{ lbs}} = 71,545 \text{ short tons CO2/yr (fugitive)}$ 

142,000 short tons CO2 = 142,000 short tons CO2/yr (platform – given data)



#### 2007 Operational Emission Estimate Based On Sponsor Feedback

Foxtrot International's 2007 operational emissions of **104,484 short tons CO2** was calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
2008 Consumption	1530 MMscf/yr from flaring, power generation, and re-boiler offshore; 206 MMscf/yr from onshore heaters	Project Sponsor
Emissions Factor	0.0546 kg CO2/scf	The Climate Registry, Table 12.1

For the purpose of this baseline calculation, we are assuming the 2007 operating year was similar to the 2008 operating year for which emissions were provided; therefore 2007 operational emissions = 104,484 short tons CO2 per year

<u>1736 MMscf</u> \* <u>1000000 scf</u> \* <u>0.0546 kg CO2</u> \* <u>short ton</u> yr <u>MMscf</u> scf 907.18 kg

2008 Operational Emission Estimate Based On Sponsor Feedback Per Sponsor feedback, emissions and operational factors did not change from 2007 to 2008.

#### 2009 Operational Emission Estimate Based On Sponsor Feedback

Per Sponsor feedback, emissions and operational factors did not change from 2007 to 2009.

#### Various Egypt Subsidiaries (Apache)

#### Maximum Potential to Emit Estimate

Various Egypt Subsidiaries (Apache)'s emissions estimate of **1,190,476 short tons CO2** was calculated by utilizing an example from API for a similar oil and gas extraction and processing facility. The API example produced 6100 barrels oil per day and 30 MMscf natural gas per day for annual emissions of 108,000 metric tonnes CO2; approximately 1/10<sup>th</sup> the size of Various Egypt Subsidiaries (Apache). Various' emissions estimate was calculated using the following information:

Data	Value	Source
Fuel Type	Oil and Natural Gas	Project Description
Production	29,934,702 barrels oil per year	Project Description
Volumes	89,910 MMscf natural gas per year	
"Emissions Factors"	108,000 metric tonnes CO2 per year for a facility that produces 6100 barrels oil per day and 30 MMscf natural gas per day	API Compendium, Table 7-4
Multiplication Factor	10	Factor applied to account for approximate size discrepancy between Apache and example
Operating Capacity Adjustment	49%	Project Sponsor



Maximum potential to emit = 2,429,543 short tons CO2 per year

<u>108,000 metric tonnes CO2</u> \* <u>short ton</u> \* 10 \* (1/.49) yr 0.9072 metric tonnes

2007 Operational Emission Estimate Based On Sponsor Feedback

Various Egypt Subsidiaries (Apache)'s 2007 operational emissions of **3,071,933 short tons CO2** was calculated using the following information:

Data	Value	Source
2007 Emissions	1,365,560 metric tones	Project Sponsor
Operating Capacity	49%	Project Sponsor
Adjustment		

2007 Operational Emissions = 3,071,933 short tons CO2 per year

1,365,560 metric tonnes \* <u>short ton</u> \* (1/.49) 0.9072 metric tonnes

<u>2008 Operational Emission Estimate Based On Sponsor Feedback</u> Various Egypt Subsidiaries (Apache)'s 2008 operational emissions of **3,244,190 short tons CO2** was calculated using the following information:

Data	Value	Source
2008 Emissions	1,365,560 metric tones	Project Sponsor
Operating Capacity	49%	Project Sponsor
Adjustment		

2008 Operational Emissions = 3,244,190 short tons CO2 per year

1,365,560 metric tonnes \* <u>short ton</u> \* (1/.49) 0.9072 metric tones

#### 2009 GHG Emissions Estimate

Various Egypt Subsidiaries (Apache)'s 2008 operational emissions of **3,294,654 short tons CO2** was calculated using the following information:

Data	Value	Source
2009 Emissions	1,464,566 metric tones	Project Sponsor
Operating Capacity	49%	Project Sponsor
Adjustment		

2009 Operational Emissions = 3,294,654 short tons CO2 per year

1,464,566 metric tonnes \* <u>short ton</u> \* (1/.49) 0.9072 metric tonnes



## West African Gas Pipeline

#### Maximum Potential to Emit Estimate

The West African Gas Pipeline's emissions estimate of **244,728 short tons CO2** was calculated accounting for both combustion emissions from the compression and transmission of natural gas as well as fugitive emissions using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Pipeline	190 MMscfd	Project Description
Throughput		
Emissions Factors	3439 lbs CO2 per MMscfd from combustion 4297 lbs CO2 per MMscfd from fugitive	U.S. EIA and EPA GHG Inventory, Tables 3-34 & 3-36

Total emissions estimate = 244,728 short tons CO2 per year

<u>190 MMscf</u> *	<sup>*</sup> <u>333 day</u> *	<sup>*</sup> <u>3439 lbs CO2</u> <sup>*</sup>	* <u>short ton</u>	= 108,792 short tons CO2/yr (combustion)
day	yr	MMscf	2000 lbs	

 $\frac{190 \text{ MMscf}}{\text{day}} * \frac{333 \text{ day}}{\text{yr}} * \frac{4297 \text{ lbs CO2}}{\text{MMscf}} * \frac{\text{short ton}}{2000 \text{ lbs}} = 135,936 \text{ short tons CO2/yr (fugitive)}$ 

### 2007 Operational Emission Estimate Based On Sponsor Feedback

The West African Gas Pipeline was under construction and not operational during 2007. Since emissions from construction would be below the 100,000 short ton threshold this project is omitted from the 2007 inventory.

#### 2008 Operational Emission Estimate Based On Sponsor Feedback

The West African Gas Pipeline was not operational during 2008. Since emissions would be below the 100,000 short ton threshold this project is omitted from the 2008 inventory.

2009 Operational Emission Estimate Based On Sponsor Feedback No additional data was available. 2009 data will default to the Maximum Potential to Emit.



# TIER C PROJECTS

Tier C projects were not included in the 2007 and 2008 inventories. As a result, emissions data for these years will not be reported.

## E.P. Interoil

2009 Operational Emission Estimate Based On Sponsor Feedback

E.P. Interoil's 2009 operational emissions of **79,709 short tons CO2** was calculated using the following information:

Data	Value	Source
2009 Emissions	72,312 metric tonnes	Project Sponsor

2009 Operational Emissions = 79,709 short tons CO2 per year

72,312 metric tonnes \* <u>short ton</u> 0.9072 metric tonnes

## Jose Lindley

#### 2009 GHG Emissions Estimate

Jose Lindley's emissions were estimated to exceed 25,000 metric tonnes. There was no sponsor feedback provided to date. It was estimated the project's emissions to be **25,000 short tons CO2** for 2009.

### Lukoil RPK-Vysotsk

2007 and 2008 emissions estimates were not calculated as they were not included either year's emissions inventory.

#### 2009 GHG Emissions Estimate

2006 was the most recent data available. The 2009 project emissions were calculated using throughput volumes. OPIC estimated the project's emissions to be **76,339 short tons CO2** for 2009. Lukoil's emissions estimate was calculated using the following information:

Data	Value	Source
Fuel Type	Petroleum Products	Project Description
Throughput Volumes	(2006) 9,173,100 tons (2009) 13,893,533 tons	Project Description
2006 Emissions	50,402 short tons	Project Description

Total emissions estimate = 76,339 short tons CO2 per year

(13,893,533 \* 50,402) 9,173,100



# Joshi Technologies / Parko Services

2009 GHG Emissions Estimate Joshi Technologies / Parko's 2008 project emissions of 30,398 were calculated using the following information:

Data	Value	Source
Fuel Type	Natural Gas	Project Description
Consumption	20,000,000 mil cu. meters	Project Description

Consumption based emissions = 30,398 short tons CO2 per year

20 MMm^3 * <u>35.3 ft^3</u> * (	<u>1027 Btu</u> *	* <u>1 mmBtu )</u>	* <u>53.06 kgCO2</u> *	* <u>0.0011023 tons</u>
M^3	ft^3	1,000,000 Btu	mmBtu	kg



# APPENDIX B

# **ACTIVE PROJECTS**

Table 4:Active Projects – As of September 30<sup>th</sup> 2010. This shortlist presents projectsscreened that were determined to have the potential to emit over 100,000 short tons of CO2.

Project Name	Country	Sector
FINANCE		
AFGHAN GROWTH FINANCE LLC	AFGHANISTAN	FIN
ABI GROUP LTD.	AFGHANISTAN	MFR
PACIFIC COLLECTION COMPANY/TRIBAL LOOM	AFGHANISTAN	MFR
MOUNTAIN PASTURES HOLDINGS LLC	AFGHANISTAN	MFR
QWO JOINT STOCK COMPANY	AFGHANISTAN	MFR
QWO JOINT STOCK COMPANY	AFGHANISTAN	MFR
SAFI APPAREL CORPORATION	AFGHANISTAN	MFR
SUSTAINABLE ENERGY SERVICES AFGHANISTAN	AFGHANISTAN	POWER
AMERICAN WOOL-CASHMERE, INC.	AFGHANISTAN	SVC
IBS HOLDINGS, LLC	AFGHANISTAN	SVC
SUMMIT ASSOCIATES, LTD.	AFGHANISTAN	SVC
TAYL INVESTORS GROUP LIMITED	AFGHANISTAN	TOUR
FIXED RATE FUNDING & LIQUIDITY LTD (HWD SPA)	ALGERIA	SVC
AEGIS INVESTMENT COMPANY	ALL OPIC COUNTRIES	FIN
BLUEORCHARD MICROFINANCE SECURITIES I LLC	ALL OPIC COUNTRIES	FIN
CALVERT SOCIAL INVESTMENT FOUNDATION	ALL OPIC COUNTRIES	FIN
CONSERVATION INTERNATIONAL FOUNDATION	ALL OPIC COUNTRIES	FIN
EMERGENCY LIQUIDITY FACILITY, L.P.	ALL OPIC COUNTRIES	FIN
MFX SOLUTIONS, INC.	ALL OPIC COUNTRIES	FIN
MICROFINANCE SECURITIES XXEB SA JUNIOR	ALL OPIC COUNTRIES	FIN
MICROFINANCE SECURITIES XXEB SA MEZZANINE	ALL OPIC COUNTRIES	FIN
MICROFINANCE SECURITIES XXEB SA SENIOR	ALL OPIC COUNTRIES	FIN
MICROVEST I, LP	ALL OPIC COUNTRIES	FIN
PROCREDIT HOLDING A.G.	ALL OPIC COUNTRIES	FIN
E+CO., INC	ALL OPIC COUNTRIES	POWER
TIVANNAH GLOBAL LDA	ANGOLA	MFR
S&N PUMP AFRICA, LDA	ANGOLA	SVC
BRAVO ENERGY ARGENTINA SCA	ARGENTINA	OIL



Project Name FINANCE	Country	Sector
COMPANIA GENERAL DE COMERCIO E INDUSTRIA SA	ARGENTINA	TOUR
DESARROLLOS DE LOS SUENOS, S.A.	ARGENTINA	TOUR
FIRST MORTGAGE COMPANY UCO, LLC	ARMENIA	FIN
WBC-ARDSHININVESTBANK CJSC	ARMENIA	FIN
ARMENIA HOTEL COMPLEX CLOSED JSC	ARMENIA	TOUR
DOMES INTERNATIONAL, INC.	ASIA REGIONAL	MFR
TBC KREDIT NON-BANKING CREDIT ORGANIZATI LLC	AZERBAIJAN	FIN
TBC KREDIT NON-BANKING CREDIT ORGANIZATI LLC	AZERBAIJAN	FIN
WBC-RABITABANK OJSC	AZERBAIJAN	FIN
WBC-TURANBANK OJSC	AZERBAIJAN	FIN
CASIA-PACIFIC BANGLADESH TELECOM LIMITED	BANGLADESH	COMM
CASIA-BRAC	BANGLADESH	FIN
NEPC CONSORTIUM POWER LTD.(HARIPUR)	BANGLADESH	POWER
VISTAS BELIZE LTD	BELIZE	CONS
RAPID MAIL COMPANY LIMITED	BELIZE	SVC
SERVICIO GRAFICOS QUIPUS	BOLIVIA	MFR
ROUMEL DEVELOPMENT CORPORATION	BOSNIA-HERZEGOVINA	CONS
ROUMEL DEVELOPMENT CORPORATION 2	BOSNIA-HERZEGOVINA	CONS
GOLDHAM PTY LTD.T/A KALAHARI GAS CORPORATION	BOTSWANA	OIL
RURALFONE, INC.	BRAZIL	COMM
AMEBRASIL CONSTRUCOES LIMITADA	BRAZIL	CONS
CSI LATINA FINANCIAL, INC/CSI LATINA ARRENDA	BRAZIL	FIN
NCB2-BANCO MERCANTIL DO BRASIL S.A.	BRAZIL	FIN
NCB3-BANCO PINE S.A.	BRAZIL	FIN
W3-BANCO FIBRA, S.A.	BRAZIL	FIN
W3-BANCO PINE, S.A.	BRAZIL	FIN
ACAI DO AMAPA AGROINDUSTRIAL LTDA.	BRAZIL	MFR
BRAZILIAN EMERALDS,INC.	BRAZIL	MINE
PRINCETON HEALTHCARE	BRAZIL	SVC
MORUMBY HOTEIS LTDA.	BRAZIL	TOUR
W2-FIRST INVESTMENT BANK BULGARIA	BULGARIA	FIN
CMFI-AGENCE DE CREDIT POUR L'ENTREPRISE PRIV	CAMEROON	FIN
NATURA BEVERAGE LLC	CAMEROON	MFR
NATURA BEVERAGE, LLC	CAMEROON	MFR
TB-DRISCOLL STRAWBERRY ASSOCIATES, INC.	CHILE	AGRI
SOCIEDAD CONCESIONARIA VESPUCIO NORTE EXPRES	CHILE	CONS



Project Name FINANCE	Country	Sector
COMPANIA MINERA PIMENTON SA	CHILE	MINE
LEAWOOD INVESTMENTS INC/BARRIEFIELD LLC	COLOMBIA	AGRI
PRODUCTORA DE PAPELES SA (PROPAL)	COLOMBIA	MFR
PRODUCTORA DE PAPELES SA (SUBORDINATED DEBT)	COLOMBIA	MFR
JOSHI TECHNOLOGIES INTERNATIONAL INC	COLOMBIA	MINE
JOSHI TECHNOLOGIES INTERNATIONAL, INC.	COLOMBIA	MINE
PARKO SERVICES, S.A.	COLOMBIA	OIL
PARKO SERVICES, S.A	COLOMBIA	OIL
CONDOMINIOS RIVERSIDE ETAPA II, S.A.	COSTA RICA	CONS
BANCO BAC SAN JOSE, S.A. (TRANCHE A)	COSTA RICA	FIN
BANCO BAC SAN JOSE, S.A. (TRANCHE B)	COSTA RICA	FIN
BANCO LAFISE S.A.	COSTA RICA	FIN
BANCO LAFISE, S.A. (TRANCHE 2)	COSTA RICA	FIN
BANCO LAFISE, S.A. (TRANCHE 3)	COSTA RICA	FIN
CCA2-BANCA PROMERICA, S.A.	COSTA RICA	FIN
CCA2-BANCO IMPROSA, S.A.	COSTA RICA	FIN
CCA2-GRUPO M HOLDING S.A.	COSTA RICA	FIN
WBC-IMPROSA SERVICIOS INTERNACIONALES S.A.	COSTA RICA	FIN
WESTSTAR PRECISION, INC.	COSTA RICA	MFR
CSA-REY BANANO DEL PACIFICO C.A.	ECUADOR	AGRI
CSA-BANCO PROCREDIT ECUADOR	ECUADOR	FIN
CORPORACION QUIPORT S.A.	ECUADOR	TRAN
BANCO DE AMERICA CENTRAL, S.A. (TRANCHE A)	EL SALVADOR	FIN
BANCO DE AMERICA CENTRAL, S.A. (TRANCHE B)	EL SALVADOR	FIN
CMFI-APOYO INTEGRAL, S.A. DE C.V.	EL SALVADOR	FIN
GOLDEN SIERRA PARTNERS, LLC	ESTONIA	MFR
MEDPHARM, INC.	ETHIOPIA	SVC
CSI LEASING POLSKA SP.Z.O.O ET AL	EUROPE REGIONAL	FIN
INTERNET GABON, SA	GABON	SVC
MIDDLE EAST INVESTMENT INITIATIVE, INC.	GAZA	FIN
MIDDLE EAST INVESTMENT INITIATIVE, INC.	GAZA	FIN
JSC IBERIA REAL ESTATE	GEORGIA	CONS
JSC SB IBERIA	GEORGIA	CONS
CHOUS-JOINT STOCK COMPANY TBC BANK	GEORGIA	FIN
JSC BANK OF GEORGIA	GEORGIA	FIN
JSC BANK OF GEORGIA	GEORGIA	FIN



Project Name FINANCE	Country	Sector
WBC-BANK OF GEORGIA	GEORGIA	FIN
WBC-GEORGIAN LEASING COMPANY, LLC	GEORGIA	FIN
SANTE GMT PRODUCTS LLC	GEORGIA	MFR
GMT MTATSMINDA, LLC	GEORGIA	SVC
GMT REAL ESTATE, LLC.	GEORGIA	SVC
JOINT STOCK COMPANY HOTEL TBILISI	GEORGIA	TOUR
AMERICAN MONOLITH LTD	GEORGIA	TRAN
PACIFIC INTERNATIONAL HOLDINGS, INC.	GEORGIA	TRAN
GHANA HOME LOANS (FUND 1) LIMITED	GHANA	FIN
AFRICAN-AMERICAN TRADING COMPANY, INC.	GHANA	MFR
CAMAS GHANA INC.	GHANA	MFR
SLID INDUSTRIES, LTD.	GHANA	MFR
LAGRAY CHEMICAL COMPANY LTD	GHANA	MFR
PHYTO-RIKER PHARMACEUTICALS LTD.	GHANA	MFR
INTERNATIONAL COMMUNITY SCHOOL LIMITED	GHANA	SVC
FLAMA DE ORO S.A.	GUATEMALA	AGRI
FLAMA DE ORO, S.A.	GUATEMALA	AGRI
LA FUTURA, S.A.	GUATEMALA	AGRI
BANCO DE AMERICA CENTRAL, S.A. (TRANCHE A)	GUATEMALA	FIN
BANCO DE AMERICA CENTRAL, S.A. (TRANCHE B)	GUATEMALA	FIN
CHOUS-BANRURAL S.A.	GUATEMALA	FIN
W3-BANCO REFORMADOR, S.A.	GUATEMALA	FIN
WBC-NUEVOS ALMACENES S.A. D/B/A/ CEMACO	GUATEMALA	SVC
ROTA INTERNATIONAL EXPORTING, LLC.	GUINEA-BISSAU	AGRI
CCA2-DIGICEL HONDURAS S.A. DE CV	HONDURAS	COMM
GHP(HONDURAS)LLC/GLOBAL HOUSING DEVELOPMENT	HONDURAS	CONS
BANCO DE AMERICA CENTRAL HONDURAS, S.A.(TR A	HONDURAS	FIN
BANCO DE AMERICA CENTRAL HONDURAS, S.A.(TR B	HONDURAS	FIN
BANCO LAFISE HONDURAS, S.A.	HONDURAS	FIN
BANCO LAFISE HONDURAS, S.A.	HONDURAS	FIN
CCA2-BANCO MERCANTIL, S.A.	HONDURAS	FIN
CHOUS-BANCO FINANCIERA COMMERCIAL HONDURENA	HONDURAS	FIN
INTER-MAC INTERNATIONAL, INC.	HONDURAS	FIN
W-BANCO FINANCIERA COMERCIAL HONDURENA	HONDURAS	FIN
W2-BANCO ATLANTIDA	HONDURAS	FIN
W2-BANCO DEL PAIS, S.A.	HONDURAS	FIN



Project Name FINANCE	Country	Sector
E+CO, INC.	HONDURAS	POWER
WBC-COMERCIAL LAEISZ, S.A. DE C.V.	HONDURAS	SVC
CASIA-SKS MICROFINANCE PRIVATE LTD.	INDIA	FIN
CASIA-SPANDANA SPHOORTY FINANCIALS LTD	INDIA	FIN
CMFI-ASA GRAMA VIDIYAL TRUST	INDIA	FIN
CMFI-BHARTIYA SAMRUDDHI FINANCE LTD.	INDIA	FIN
CMFI-FRIENDS OF WOMEN'S WORLD BANKING	INDIA	FIN
CMFI-GRAMEEN FINANCIAL SERVICES PRIVATE LTD	INDIA	FIN
CMFI-SKS MICROFINANCE PVT LTD	INDIA	FIN
CMFI-SPANDANA SPHOORTY FINANCIAL LIMITED	INDIA	FIN
REPCO HOME FINANCE LIMITED	INDIA	FIN
CEMA ELECTRIC LIGHTING PRODUCTS INDIA PVT LT	INDIA	MFR
WBC-PREFERRED BRANDS INTERNATIONAL, LLC	INDIA	MFR
WBC-PREFERRED BRANDS INTERNATIONAL, LLC	INDIA	MFR
AZURE POWER PUNJAB PRIVATE LIMITED	INDIA	POWER
HUSK POWER SYSTEMS, INC.	INDIA	POWER
PT. PADI MURNI INDONESIA	INDONESIA	MFR
PT. TUCAN PUMPCO SERVICES INDONESIA	INDONESIA	OIL
PAITON ENERGY COMPANY	INDONESIA	POWER
PAITON ENERGY COMPANY	INDONESIA	POWER
INTERNATIONAL DEVELOPMENT TRUST IRAQ	IRAQ	CONS
SIGMA INTERNATIONAL CONSTRUCTION LLC.	IRAQ	CONS
IRAQ MIDDLE MARKET DEVELOPMENT FOUNDATION	IRAQ	FIN
IRAQ MIDDLE MARKET DEVELOPMENT FOUNDATION	IRAQ	FIN
IRAQ MIDDLE MARKET DEVELOPMENT FOUNDATION	IRAQ	FIN
IRAQ MIDDLE MARKET DEVELOPMENT FOUNDATION	IRAQ	FIN
TRADE BANK OF IRAQ	IRAQ	FIN
SUMMIT HOTELS LIMITED/SUMMIT GLOBAL GROUP	IRAQ	TOUR
EPISCOPAL CHURCH OF JERUSALEM & THE MIDDLE E	ISRAEL	CONS
AMERICAN INTERNATIONAL SCHOOL OF KINGSTON	JAMAICA	SVC
ARAB BANK PLC	JORDAN	FIN
CAIRO AMMAN BANK	JORDAN	FIN
CMFI-TAMWEELCOM	JORDAN	FIN
HOUSING BANK FOR TRADE & FINANCE	JORDAN	FIN
CAFR-MIDDLE EAST COMPLEX FOR ENGINEERING	JORDAN	MFR
AES JORDAN PSC	JORDAN	POWER



Project Name FINANCE	Country	Sector
DISI WATER PSC	JORDAN	SVC
CHOUS2-JSC BANK CENTERCREDIT	KAZAKHSTAN	FIN
CHOUS2-JSC HALYK SAVINGS BANK	KAZAKHSTAN	FIN
CNIS-JSC HALYK BANK	KAZAKHSTAN	FIN
NCB2 -BANK TURAN ALEM	KAZAKHSTAN	FIN
NCB2 -BANK TURAN ALEM	KAZAKHSTAN	FIN
NCB3-ALLIANCE BANK JSC	KAZAKHSTAN	FIN
NCB3-ATF BANK JSC	KAZAKHSTAN	FIN
NCB3-BANK CENTER CREDIT JSC	KAZAKHSTAN	FIN
W2-ALLIANCE BANK	KAZAKHSTAN	FIN
W2-JSC BANK TURAN ALEM	KAZAKHSTAN	FIN
JOPA VILLAS, LLC	KENYA	CONS
CMFI-FAULU KENYA	KENYA	FIN
CMFI-K-REP BANK	KENYA	FIN
CMFI-KENYA WOMEN FINANCE TRUST LTD ("KWFT")	KENYA	FIN
CMFI-KENYA WOMEN FINANCE TRUST LTD ("KWFT2")	KENYA	FIN
GEOSURVEY INTERNATIONAL LLC	KENYA	SVC
LIVING WATER INTERNATIONAL	KENYA	SVC
MAJESTIC GROUP KOREA, LTD.	KOREA (SOUTH)	SVC
INTERNATIONAL VILLAGE SH.P.K.	KOSOVO	CONS
WBC-FORESTRADE, INC	LATIN AMERICA REGIONAL	AGRI
CSI LATINA FINANCIAL, INC/CSI LEASING DE CENT	LATIN AMERICA REGIONAL	FIN
EMERGENCY LIQUIDITY FACILITY, L.P.	LATIN AMERICA REGIONAL	FIN
GLOBAL PARTNERSHIPS MICROFINANCE FUND2006LLC	LATIN AMERICA REGIONAL	FIN
GLOBAL PARTNERSHIPS MICROFINANCE FUND2008LLC	LATIN AMERICA REGIONAL	FIN
GLOBAL PARTNERSHIPS MICROFINANCE FUND2008LLC	LATIN AMERICA REGIONAL	FIN
CHF LEBANON-FRANSABANK S.A.L.	LEBANON	FIN
CHF/L-CREDIT LEBANAIS BANK	LEBANON	FIN
CHF/L-FRANSABANK S.A.L.	LEBANON	FIN
CHF/L-JAMAL TRUST BANK S.A.L.	LEBANON	FIN
CHF/L-LEBANESE CANADIAN BANK	LEBANON	FIN
CLEB-BANKMED S.A.L.	LEBANON	FIN
CLEB-BANQUE LIBANO-FRANCAISE S.A.L.	LEBANON	FIN
CLEB-BYBLOS BANK S.A.L.	LEBANON	FIN
CLEB2-BANK AUDI SAL-AUDI SARADAR GROUP	LEBANON	FIN
CLEB2A-BANK AUDI SAL-AUDI SARADAR GROUP	LEBANON	FIN



Project Name FINANCE	Country	Sector
CLEB2A-BYBLOS BANK SAL	LEBANON	FIN
THE COOPERATIVE HOUSING FOUNDATION LEBANON	LEBANON	FIN
SABLE-CELLCOM TELECOMMUNICATIONS INC	LIBERIA	COMM
SABLE-CELLCOM TELECOMMUNICATIONS INC	LIBERIA	COMM
RLJ LIBERIA, LLC	LIBERIA	CONS
LIBERIAN ENTERPRISE DEVELOPMENT FINANCE CO.	LIBERIA	FIN
BUCHANAN RENEWABLES FUEL INC.	LIBERIA	MFR
BUCHANAN RENEWABLES (MONROVIA) POWER INC.	LIBERIA	POWER
AMERICAN INTERNATIONAL SCHOOL OF MONROVIA IN	LIBERIA	SVC
ADOBERIA SAHEL, S.A.	MALI	MFR
AMERICAN INTERNATIONAL SCHOOL OF BAMAKO	MALI	SVC
CASAMAR MAURITIUS, LTD./CASAMAR INDIAN OCEAN	MAURITIUS	MFR
TB-ANDREW & WILLIAMSON FRESH PRODUCE	MEXICO	AGRI
WBC-MARICULTURA DEL NORTE, S.DE R.L. DE C.V.	MEXICO	AGRI
WBC-SOUTHERN VALLEY FRUIT & VEGETABLE, INC.	MEXICO	AGRI
WBC-MONOLITHIC HOUSING S.A.	MEXICO	CONS
BAN-CREDITO INMOBILARIO S.A. DE C.V.	MEXICO	FIN
CMFI-FUNDACION INTEGRAL COMUNITARIA (FINCA)	MEXICO	FIN
CSI LATINA FINANCIAL, INC./CSI LEASING MEXIC	MEXICO	FIN
PROMOTORA DE INFRAESTRUCTURA REGISTRAL, S.A.	MEXICO	FIN
REFORMA BLN-BACKED I	MEXICO	FIN
SALVATIERRA DESARROLLOS URBANOS, S.A. DE C.V	MEXICO	FIN
VEHICULOS LIQUIDOS FINANCIEROS SAPI DE C.V.	MEXICO	FIN
WBC-DOCUFORMAS S.A.P.I. DE C.V.	MEXICO	FIN
PREFABRICADOS Y MODULARES DE MONTERREY(PYMM)	MEXICO	MFR
WBC-CORPORATIVO PAPELERO Y DE SUMINISTROS BA	MEXICO	MFR
BRAVO ENERGY MEXICO SRL DE CV	MEXICO	OIL
DEXTER SAFETY & INDUSTRIAL PRODUCTS, INC.	MEXICO	SVC
UMBRALCAPITAL, S.A.P.I. DE C.V.	MEXICO	SVC
WBC-VALLARTA VISION Y MISION A.C.	MEXICO	SVC
RED CARRETERAS DE OCCIDENTE, S. DE RL DE CV	MEXICO	TRAN
BANCA DE FINANTE SI COMERT S.A.	MOLDOVA	FIN
WBC-ICS PRIME CAPITAL SRL	MOLDOVA	FIN
WBC-KELLEY GRAINS CORPORATION S.R.L.	MOLDOVA	MFR
IKH TOKHOIROL XXK	MONGOLIA	MINE
MONGOLIAN RESORTS XXK	MONGOLIA	TOUR



Project Name	Country	Sector
FINANCE GAMETRACKERS MANAGEMENT LTD (NYATI LODGE)	MOZAMBIQUE	TOUR
MERCURY INVESTMENTS LIMITADA	MOZAMBIQUE	TOUR
	NAMIBIA	MFR
BANCO DE AMERICA CENTRAL, S.A. (TRANCHE A)	NICARAGUA	FIN
BANCO DE AMERICA CENTRAL, S.A. (TRANCHE B)	NICARAGUA	FIN
BANCO DE CREDITO CENTROAMERICANO, S.A.	NICARAGUA	FIN
BANCO DE CREDITO CENTROAMERICANO, S.A.	NICARAGUA	FIN
BANCO DE CREDITO CENTROAMERICANO, S.A.	NICARAGUA	FIN
CHOUS-BANCO DE LA PRODUCCION S.A.	NICARAGUA	FIN
GILBERTO J.M.GONZALEZ/DBA/FERRETERIA MORALES	NICARAGUA	SVC
INSTITUTO CULINARIO SANTA LUCIA,S.A.	NICARAGUA	SVC
NGL FUNDING LIMITED	NIGERIA	OIL
AMERICAN INTERNATIONAL SCHOOL OF ABUJA	NIGERIA	SVC
CAFR-AMERICAN INTERNATIONAL SCHOOL LAGOS	NIGERIA	SVC
CITIBANK, N.A.(RUSSIA/CIS LENDING FACILITY)	NIS REGIONAL	FIN
CPAK-PAKISTAN MOBILE COMMUNICATION(PMCL)	PAKISTAN	COMM
CITIBANK, N.A. (PAKISTAN ON LENDING FACILITY)	PAKISTAN	FIN
CPAK2-KASHF FOUNDATION	PAKISTAN	FIN
EMERGING MARKETS CONSULTING (PRIVATE) LTD.	PAKISTAN	FIN
TAMEER MICROFINANCE BANK LIMITED	PAKISTAN	FIN
CPAK2-ENGRO VOPAK TERMINAL LTD	PAKISTAN	MFR
SWEETWATER PAKISTAN (PRIVATE) LIMITED	PAKISTAN	MFR
AMERICAN INTERNATIONAL SCHOOL SYSTEMS, INC.	PAKISTAN	SVC
CSA-DIGICEL PANAMA S.A.	PANAMA	COMM
BAC INTERNATIONAL BANK, INC. (TRANCHE A)	PANAMA	FIN
BAC INTERNATIONAL BANK, INC. (TRANCHE B)	PANAMA	FIN
W3-CREDICORP BANK, S.A.	PANAMA	FIN
DESARROLLO DE RIO PACORA SA	PANAMA	MFR
DESARROLLO DE RIO PACORA SA	PANAMA	MFR
GLOBAL DESIGN, S.A.	PANAMA	SVC
E.P. INTEROIL, LTD.	PAPUA NEW GUINEA	MFR
CSA-BANCO REGIONAL, S.A.	PARAGUAY	FIN
CSA-BBVA PARAGUAY S.A.	PARAGUAY	FIN
CSA-INTERBANCO S.A.	PARAGUAY	FIN
GLOBOKAS PERU, S.A.C.	PERU	FIN
W3-BANCO FINANCIERO DEL PERU, S.A.	PERU	FIN



Project Name FINANCE	Country	Sector
W3-BANCO INTERAMERICANO DE FINANZAS, S.A.	PERU	FIN
CSA-CORPORACION JOSE R. LINDLEY, S.A.	PERU	MFR
CSA-CORPORACION JOSE R. LINDLEY, SA-2	PERU	MFR
NORTH AMERICAN FLOAT PLANE SERVICE SAC	PERU	TRAN
CMFI-CENTER FOR AGRICULTURE & RURAL DEVELOP	PHILIPPINES	FIN
COUNTERPART INTERNATIONAL, INC.	PHILIPPINES	FIN
GOLDEN CYPRESS WATER CO. LTD.	PHILIPPINES	MFR
AMTECH SP.ZO.O	POLAND	CONS
PALCO SP.ZO.O.	POLAND	MFR
LODOM SP.ZO.O-FACILITY B	POLAND	TRAN
CAPA FINANCE SA	ROMANIA	FIN
CMFI-OPPORTUNITY MICROCREDIT ROMANIA ("OMRO"	ROMANIA	FIN
EXPRESS FINANCE-INSTITUTIE FINANCIARA NEBAN	ROMANIA	FIN
THE COOPERATIVE HOUSING FOUNDATION	ROMANIA	FIN
THE COOPERATIVE HOUSING FOUNDATION	ROMANIA	FIN
VERIDA CREDIT IFN S.A.	ROMANIA	FIN
DMITROV DAIRY FARMS, CJSC	RUSSIA	AGRI
ZAO STAR NETWORKS	RUSSIA	COMM
ZAO STAR NETWORKS	RUSSIA	COMM
CLOSED JOINT STOCK COMPANY DELTALEASING	RUSSIA	FIN
CMFI-CJSC FORUS BANK	RUSSIA	FIN
GREENWICH FINANCIAL SERVICES, L.L.C.	RUSSIA	FIN
NCB-NBD BANK, JOINT-STOCK COMPANY	RUSSIA	FIN
NCB-OJSC SIBACADEMBANK	RUSSIA	FIN
NCB2-JSC PROMSVYAZBANK	RUSSIA	FIN
NCB3-CENTER-INVEST BANK JSC	RUSSIA	FIN
NCB3-LOCKO BANK	RUSSIA	FIN
NCB3-ROSEUROBANK	RUSSIA	FIN
NCB3-TRANSCAPITAL BANK JSC	RUSSIA	FIN
RKU FRANCHISING LIMITED	RUSSIA	FIN
W2-PROBUSINESSBANK	RUSSIA	FIN
WBC-INDEPENDENT LEASING, LLC	RUSSIA	FIN
WBC-NBD BANK	RUSSIA	FIN
WBC-OJSC COMMERCIAL BANK "SDM-BANK"	RUSSIA	FIN
WBC-SOTSYALNIY GORODSKOY BANK (SOTSGORBANK)	RUSSIA	FIN
WBC-ZAO DELTALEASING	RUSSIA	FIN



Project Name FINANCE	Country	Sector
ZAO COMMERCIAL BANK DELTACREDIT	RUSSIA	FIN
ZAO EUROPLAN	RUSSIA	FIN
ZAO EUROPLAN	RUSSIA	FIN
NUMOTECH, INC.	RUSSIA	MFR
V G ENTERPRISES, INC.	RUSSIA	MFR
WBC-JSC POLIGRAF LAND	RUSSIA	MFR
ZAO NUMOTECH-SPEKTR	RUSSIA	MFR
ZAO SOLNTSE MEXICO	RUSSIA	MFR
RPK-VYSOTSK "LUKOIL-II"	RUSSIA	OIL
ABAMEDIA, L.P.(TRANCHE A)	RUSSIA	SVC
NEW YORK PIZZA CO. LTD.	RUSSIA	SVC
PJ DEVELOPMENT LLC	RUSSIA	SVC
SUBWAY RUSSIA, LLC	RUSSIA	SVC
WBC-ZAO AIRES	RUSSIA	SVC
WBC-ZAO AIRES	RUSSIA	SVC
HERMITAGE HOSPITALITY FRANCHISING LIMITED	RUSSIA	TOUR
SOUTH AFRICA FINANCING ENTERPRISE	SOUTH AFRICA	CONS
BLUE FINANCIAL SERVICES LIMITED	SOUTH AFRICA	FIN
HOUSING FOR HIV, INC.	SOUTH AFRICA	FIN
WBC-BLUE FINANCIAL SERVICES LIMITED	SOUTH AFRICA	FIN
PURPLE RHINO IMPORTS, INC.	SOUTH AFRICA	MFR
CASIA-LANKA ORIX LEASING COMPANY LTD.	SRI LANKA	FIN
CAFR-MIC TANZANIA LIMITED (TZS)	TANZANIA	COMM
CAFR-MIC TANZANIA LIMITED (USD)	TANZANIA	COMM
BRAC AFRICA MICROFINANCE, LTD. (CLASS A)	TANZANIA	FIN
BRAC AFRICA MICROFINANCE, LTD. (CLASS B)	TANZANIA	FIN
TANRUSS INVESTMENT LTD	TANZANIA	TOUR
TANRUSS INVESTMENT LTD	TANZANIA	TOUR
PACIFIC SUBSEA SAIPAN 2	THAILAND	TRAN
PACIFIC SUBSEA SAIPAN 3	THAILAND	TRAN
PACIFIC SUBSEA SAIPAN, INC.	THAILAND	TRAN
CONTOURGLOBAL TOGO S.A.	TOGO	POWER
RB-AMERICAN COOPERATIVE SCHOOL OF TUNIS	TUNISIA	SVC
NCB2 -OYAK BANK A.S.	TURKEY	FIN
NCB2-ASYA KATILIM BANKASI A.S.	TURKEY	FIN
NCB2-TURK EKONOMI BANKASI A.S. PURPOSE B	TURKEY	FIN



Project Name FINANCE	Country	Sector
NCB2-TURK EKONOMI BANKASI A.S.(T.E.B.)	TURKEY	FIN
TURKIYE GARANTI BANKASI A.S.	TURKEY	FIN
W-OYAK BANK	TURKEY	FIN
W2-AKBANK T.A.S.	TURKEY	FIN
W2-ANADOLUBANK	TURKEY	FIN
W2-ASYA KATILIM BANKASI A.S.	TURKEY	FIN
W2-FINANSBANK A.S.	TURKEY	FIN
W2-OYAK BANK A.S.	TURKEY	FIN
W2-TURK EKONOMI BANK	TURKEY	FIN
W3-BANKPOZITIF KREDIT VE KALKINAM BANKASI	TURKEY	FIN
W3-SEKERBANK A.S.	TURKEY	FIN
W3-TURKIYE GARANTI BANKASI AS	TURKEY	FIN
DT METAL GERI KAZANIM TEKNOLOJILERI SANAYI	TURKEY	MFR
WBC-FERSAN FERMANTASYON URUN SAN. VE TIC.A.S	TURKEY	MFR
WBC-DELTA PLASTIK ENDUSTRISI A.S.	TURKEY	MFR
WBC-KAYNAK SULARI VE TURIZM A.S.	TURKEY	MFR
WBC-INTERFARMA TIBBI MALZEMELER SANAYI VE TI	TURKEY	MFR
WBC-SFC ENTEGRE ORMAN URUNLERI SANAYI VE TIC	TURKEY	MFR
ADAPAZARI ELEKTRIK URETIM LTD. SIRKETI	TURKEY	POWER
DOGA ENERJI	TURKEY	POWER
GEBZE ELEKTRIK URETIM LTD SIRKETI	TURKEY	POWER
IZMIR ELEKTRIK URETIM LTD SIRKETI	TURKEY	POWER
ISTANBUL INTERNATIONAL COMMUNITY SCHOOL (B)	TURKEY	SVC
ISTANBUL INTERNATIONAL COMMUNITY SCHOOL, INC.	TURKEY	SVC
M/N BUTLER MIMARLAR ARASTIRMA TASARI LTD.	TURKEY	TOUR
SOM OTELCILIK VE TURIZM TICARET A.S.	TURKEY	TOUR
SOM OTELCILIK VE TURIZM TICARET A.S.	TURKEY	TOUR
CMFI-PRIDE UGANDA	UGANDA	FIN
CMFI-UGANDA FINANCE TRUST	UGANDA	FIN
MAPSWITCH UGANDA LTD	UGANDA	FIN
INTERNATIONAL MORTGAGE BANK	UKRAINE	FIN
PROCREDIT BANK	UKRAINE	FIN
PROCREDIT BANK (TRANCHE 2)	UKRAINE	FIN
WBC-ATLANTIC GROUP LIMITED	UKRAINE	SVC
WINNER GROUP UKRAINE, INC.	UKRAINE	SVC
O&S CONSULTING, L.L.C.	UZBEKISTAN	CONS



Project Name FINANCE	Country	Sector
MALIKA HOTEL BUKHARA, LLC	UZBEKISTAN	TOUR
RAYMOND DE VENEZUELA, C.A.	VENEZUELA	MFR
RAYMOND DE VENEZUELA, C.A.	VENEZUELA	MFR
ACCROVEN SRL	VENEZUELA	OIL
WILPRO ENERGY SERVICES (EL FURRIAL) LIMITED	VENEZUELA	OIL
WILPRO ENERGY SERVICES (PIGAP II) LTD.	VENEZUELA	OIL
AUSTRALIS AQUACULTURE LLC	VIETNAM	AGRI
MEII-BANK OF PALESTINE (WATANIYA)	WEST BANK	COMM
MEII-QUDS BANK (WATANIYA)	WEST BANK	COMM
AMAL-BANK OF PALESTINE (BOP) MORTGAGE CORP I	WEST BANK	FIN
AMAL-BANK OF PALESTINE MORTGAGE CORP II	WEST BANK	FIN
AMAL-CAIRO AMMAN BANK (CAB)MORTGAGE CORP I	WEST BANK	FIN
AMAL-CAIRO AMMAN BANK MORTGAGE CORP II	WEST BANK	FIN
MEII-AL RAFAH BANK	WEST BANK	FIN
MEII-AL-QUDS BANK FOR DEVELOPMENT & INVEST	WEST BANK	FIN
MEII-BANK OF JORDAN	WEST BANK	FIN
MEII-BANK OF PALESTINE	WEST BANK	FIN
MEII-CAIRO AMMAN BANK	WEST BANK	FIN
MEII-HOUSING BANK FOR TRADE AND FINANCE	WEST BANK	FIN
MEII-JORDAN AHLI BANK	WEST BANK	FIN
MEII-PALESTINE COMMERCIAL BANK	WEST BANK	FIN
CASIA-DIGICEL (SAMOA) LIMITED	WESTERN SAMOA	COMM
HFA ZAMBIA LIMITED	ZAMBIA	FIN
AMERICAN EMBASSY SCHOOL OF LUSAKA	ZAMBIA	SVC



Project Name INSURANCE	Country	Sector
INTERNATIONAL FOUNDATION OF HOPE	AFGHANISTAN	AGRICULTURE
INTERNATIONAL FOUNDATION OF HOPE	AFGHANISTAN	AGRICULTURE
ARC CONSTRUCTION COMPANY, LLC	AFGHANISTAN	CONSTRUCTION
ABI GROUP LTD.	AFGHANISTAN	MANUFACTURING
AFGHANISTAN BEVERAGE INDUSTRIES (ABI GROUP, LIMITED) AFGHANISTAN BEVERAGE INDUSTRIES (ABI GROUP,	AFGHANISTAN	MANUFACTURING
LIMITED)	AFGHANISTAN	MANUFACTURING
AFGHANISTAN NATURAL BEVERAGES	AFGHANISTAN	MANUFACTURING
NOT APPLICABLE	AFGHANISTAN	MANUFACTURING
ASIA FOUNDATION	AFGHANISTAN	SERVICES
ASIA FOUNDATION	AFGHANISTAN	SERVICES
INTERNATIONAL RESCUE COMMITTEE, INC.	AFGHANISTAN	SERVICES
INTERNATIONAL RESCUE COMMITTEE, INC.	AFGHANISTAN	SERVICES
N/A	AFGHANISTAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	AFGHANISTAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	AFGHANISTAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE KWABA - SOCIEDADE INDUSTRIAL E COMERCIAL,	AFGHANISTAN	SERVICES
S.A.R.L.	ANGOLA	MANUFACTURING
N/A	ANGOLA	SERVICES
S&N PUMP AFRICA LDA	ANGOLA	SERVICES
FINCA LA CRUZ	ARGENTINA	AGRICULTURE
N/A THE BAKU-TBILISI-CEYHAN PIPELINE COMPANY	ARMENIA AZERBAIJAN	SERVICES ENERGY - OIL AND GAS
THE BARD-TBILISI-CETHAN PIPELINE COMPANT	AZERDAIJAN	FINANCIAL
CREDAGRO	AZERBAIJAN	SERVICES FINANCIAL
INKISHAF UNCHUN MALIYYE ("FINDEV")	AZERBAIJAN	SERVICES FINANCIAL
NORWEGIAN MICROCREDIT LLC ("NORMICRO")	AZERBAIJAN	SERVICES
INTERNATIONAL RESCUE COMMITTEE, INC.	AZERBAIJAN	SERVICES
N/A	AZERBAIJAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	AZERBAIJAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	AZERBAIJAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	AZERBAIJAN	SERVICES
N/A	BANGLADESH	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	BANGLADESH	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	BANGLADESH	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	BANGLADESH	SERVICES



Project Name INSURANCE	Country	Sector
THE ASIA FOUNDATION	BANGLADESH	SERVICES
THE ASIA FOUNDATION	BANGLADESH	SERVICES ENERGY - OIL AND
WEST AFRICAN GAS PIPELINE COMPANY LIMITED	BENIN	GAS
AXS BOLIVIA S.A. FUNDACIÓN BOLIVIANA PARA EL DESARROLLO DE LA	BOLIVIA	COMMUNICATION FINANCIAL
MUJER FUNDACIÓN BOLIVIANA PARA EL DESARROLLO DE LA	BOLIVIA	SERVICES
MUJER	BOLIVIA	SERVICES
EMPRESA MINERA MANQUIRI S.A.	BOLIVIA	MINING FINANCIAL
MIKROKREDITNA ORGANIZACIJA MI-BOSPO	BOSNIA-HERZEGOVINA	SERVICES
INTERNATIONAL RESCUE COMMITTEE, INC.	BOSNIA-HERZEGOVINA	SERVICES
N/A	BOSNIA-HERZEGOVINA	SERVICES
BRASIL TELECOM, S.A.	BRAZIL	COMMUNICATION
RURALFONE DO BRASIL, LTDA.	BRAZIL	COMMUNICATION
RURALFONE DO BRASIL, LTDA.	BRAZIL	COMMUNICATION
RURALFONE DO BRASIL, LTDA.	BRAZIL	COMMUNICATION
RURALFONE DO BRASIL, LTDA.	BRAZIL	COMMUNICATION
RURALFONE DO BRASIL, LTDA.	BRAZIL	COMMUNICATION
RURALFONE DO BRASIL, LTDA.	BRAZIL	COMMUNICATION FINANCIAL
BANCO PINE	BRAZIL	SERVICES
ACAI DO AMAPA AGROINDUSTRIAL LTDA.	BRAZIL	MANUFACTURING
INTERNATIONAL RESCUE COMMITTEE	BURUNDI	SERVICES
THE ASIA FOUNDATION	CAMBODIA	SERVICES
THE ASIA FOUNDATION	CAMBODIA	SERVICES
NATURA BEVERAGE SARL INTERNATIONAL RESCUE COMMITTEE, INC. BRANCH	CAMEROON CENTRAL AFRICAN	MANUFACTURING
OFFICES	REPUBLIC	SERVICES
TERMOVALLE S.C.AE.S.P.	COLOMBIA	ENERGY - POWER
TERMOVALLE S.C.A. E.S.P.	COLOMBIA	ENERGY - POWER
SECTOR RESOURCES, LTD. BRANCH	COLOMBIA	MINING
SECTOR RESOURCES, LTD. BRANCH	COLOMBIA	MINING
INTERNATIONAL RESCUE COMMITTEE	COLOMBIA	SERVICES
MINOTERIE DU CONGO, S.A.	CONGO	MANUFACTURING
MINOTERIE DU CONGO, S.A.	CONGO	MANUFACTURING
INTERNATIONAL RESCUE COMMITTEE, INC. INTERNATIONAL RESCUE COMMITTEE, INC. BRANCH	CONGO	SERVICES
OFFICES	CONGO	SERVICES



Droject Nome	Country	Castor
Project Name INSURANCE	Country	Sector
MINOTERIE DE MATADI, S.A.R.L.	CONGO, DEM. REPUBLIC OF CONGO, DEM. REPUBLIC	MANUFACTURING
MINOTERIE DE MATADI, S.A.R.L.	OF CONGO, DEM. REPUBLIC	MANUFACTURING
MINOTERIE DE MATADI, S.A.R.L. INTERNATIONAL RESCUE COMMITTEE, INC. BRANCH OFFICES	OF CONGO, DEM. REPUBLIC OF	MANUFACTURING SERVICES
COLITE COSTA RICA, S.A.	COSTA RICA	SERVICES
FOXTROT INTERNATIONAL LDC	COTE DIVOIRE	ENERGY - OIL AND GAS ENERGY - OIL AND
FOXTROT INTERNATIONAL LDC	COTE DIVOIRE	GAS FINANCIAL
PROFICIO D.D.	CROATIA	SERVICES
DOMINICA ELECTRICITY SERVICES LTD. ("DOMLEC")	DOMINICA	ENERGY - POWER
THE ASIA FOUNDATION	EAST TIMOR	SERVICES
THE ASIA FOUNDATION D-MIRO, MISIÓN ALIANZA-ECUADOR, VÍA PERIMETRAL,	EAST TIMOR	SERVICES FINANCIAL
ISLA	ECUADOR	SERVICES
D-MIRO, MISIÓN ALIANZA-ECUADOR, VÍA PERIMETRAL, ISLA	ECUADOR	FINANCIAL SERVICES
D-MIRO, MISIÓN ALIANZA-ECUADOR, VÍA PERIMETRAL, ISLA	ECUADOR	FINANCIAL SERVICES
D-MIRO, MISIÓN ALIANZA-ECUADOR, VÍA PERIMETRAL, ISLA	ECUADOR	FINANCIAL SERVICES
D-MIRO, MISIÓN ALIANZA-ECUADOR, VÍA PERIMETRAL, ISLA	ECUADOR	FINANCIAL SERVICES
CORPORACION QUIPORT S.A.	ECUADOR	TRANSPORTATION
CORPORACION QUIPORT S.A.	ECUADOR	TRANSPORTATION
N/A	EGYPT	ENERGY - OIL AND GAS ENERGY - OIL AND
VARIOUS APACHE EGYPT CONCESSION SUBSIDIARIES	EGYPT	GAS
COLITE EL SALVADOR S.A., C/O RUSCONI -	EL SALVADOR	SERVICES
INTERNATIONAL RESCUE COMMITTEE - ERITREA INTERNATIONAL RESCUE COMMITTEE - BRANCH	ERITREA	SERVICES
OFFICES	ETHIOPIA	SERVICES
N/A	ETHIOPIA	SERVICES
AMERICAN DREAM HOME, S.C.I.	GABON	CONSTRUCTION FINANCIAL
JSC TBC BANK	GEORGIA	SERVICES
N/A	GEORGIA	SERVICES ENERGY - OIL AND
WEST AFRICAN GAS PIPELINE COMPANY LIMITED	GHANA	GAS



Project Name INSURANCE	Country	Sector
GHANA HOME LOANS (FUND I) LIMITED	GHANA	FINANCIAL SERVICES FINANCIAL
SINAPI ABA TRUST	GHANA	SERVICES
INTERNATIONAL COMMUNITY SCHOOL, LIMITED	GHANA	SERVICES
N/A	GHANA	SERVICES
GRENADA ELECTRICITY SERVICES LIMITED	GRENADA	ENERGY - POWER
COLITE GUATEMALA, S.A.	GUATEMALA	SERVICES
INTERNATIONAL RESCUE COMMITTEE, INC GUINEA	GUINEA	SERVICES
LES MOULINS D'HAITI S.E.M. (LMH)	HAITI	MANUFACTURING
LES MOULINS D'HAITI S.E.M. (LMH)	HAITI	MANUFACTURING
N/A	HAITI	SERVICES
COLITE HONDURAS, S.A.	HONDURAS	SERVICES
SEP ENERGY INDIA PVT. LTD.	INDIA	ENERGY - POWER
SEP ENERGY INDIA PVT. LTD.	INDIA	ENERGY - POWER ENERGY - OIL AND
PT TUCAN PUMPCO SERVICES INDONESIA	INDONESIA	GAS
INTERNATIONAL RESCUE COMMITTEE - JAKARTA	INDONESIA	SERVICES
JL. ADITYAWARMAN	INDONESIA	SERVICES
JL. ADITYAWARMAN	INDONESIA	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	INDONESIA	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	INDONESIA	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	INDONESIA	SERVICES
KHUDAIRI TRADING COMPANY LTD.	IRAQ	SERVICES
DAR ES SALAAM INSURANCE COMPANY	IRAQ	TOURISM/HOTELS
DISI WATER PSC	JORDAN	SERVICES
N/A	JORDAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICES	JORDAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICES	JORDAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICES	JORDAN	SERVICES
THE INTERNATIONAL RESCUE COMMITTEE	JORDAN	SERVICES
N/A	KAZAKHSTAN	SERVICES
INTERNATIONAL RESCUE COMMITTEE - KENYA	KENYA	SERVICES
N/A GENWORTH MORTGAGE INSURANCE CORP, KOREA	KENYA KOREA (SOUTH)	SERVICES FINANCIAL SERVICES
THE ASIA FOUNDATION	KOREA (SOUTH)	SERVICES
THE ASIA FOUNDATION THE ASIA FOUNDATION	KOREA (SOUTH)	
		GEINNOLD



Project Name	Country	Sector
INSURANCE		
EQUATE PETROCHEMICAL COMPANY K.S.C. (CLOSED)	KUWAIT	MANUFACTURING
KOMPANION FINANCIAL GROUP MICRO CREDIT LIMITED LIABILITY CO.	KYRGYZ REPUBLIC	FINANCIAL SERVICES
KOMPANION FINANCIAL GROUP MICRO CREDIT LIMITED LIABILITY CO.	KYRGYZ REPUBLIC	FINANCIAL SERVICES
JOINT VENTURE ITALKYR CJSC	KYRGYZ REPUBLIC	TOURISM/HOTELS
JOINT VENTURE ITALKYR CJSC	KYRGYZ REPUBLIC	TOURISM/HOTELS
JOINT VENTURE ITALKYR CJSC	KYRGYZ REPUBLIC	TOURISM/HOTELS FINANCIAL
BANK AUDI SAL-AUDI SARADAR GROUP	LEBANON	SERVICES
AMERICAN UNIVERSITY OF BEIRUT	LEBANON	SERVICES
N/A	LEBANON	SERVICES
N/A	LEBANON	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICES	LEBANON	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICES	LEBANON	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICES	LEBANON	SERVICES
LESOTHO FLOUR MILLS LIMITED	LESOTHO	MANUFACTURING
NATIONWIDE GROUP OF COMPANIES, INC.	LIBERIA	MANUFACTURING
INTERNATIONAL RESCUE COMMITTEE	LIBERIA	SERVICES
KWAPLAH INTERNATIONAL (LIBERIA), INC.	LIBERIA	SERVICES
KWAPLAH INTERNATIONAL (LIBERIA), INC.	LIBERIA	SERVICES
RLJ LIBERIA LLC	LIBERIA	TOURISM/HOTELS
WADE RAIN DE MEXICO, S. DE R.L. DE C.V.	MEXICO	SERVICES
N/A	MOLDOVA	SERVICES
THE ASIA FOUNDATION	MONGOLIA	SERVICES
THE ASIA FOUNDATION	MONGOLIA	SERVICES
N/A	MOROCCO	SERVICES
N/A	MOZAMBIQUE	SERVICES
INTERNATIONAL RESCUE COMMITTEE	NEPAL	SERVICES
THE ASIA FOUNDATION	NEPAL	SERVICES
THE ASIA FOUNDATION	NEPAL	SERVICES
SOUTHERN COASTAL PROPERTIES NICARAGUA, S.A., C/O FERNANDO	NICARAGUA	CONSTRUCTION ENERGY - OIL AND
MKJ EXPLORACIONES INTERNACIONALES, S.A.	NICARAGUA	GAS ENERGY - OIL AND
MKJ EXPLORACIONES INTERNACIONALES, S.A.	NICARAGUA	GAS
MKJ EXPLORACIONES INTERNACIONALES, S.A.	NICARAGUA	ENERGY - OIL AND GAS



Project Name INSURANCE	Country	Sector
MKJ EXPLORACIONES INTERNACIONALES, S.A.	NICARAGUA	ENERGY - OIL AND GAS
		ENERGY - OIL AND
MKJ EXPLORACIONES INTERNACIONALES, S.A.	NICARAGUA	GAS ENERGY - OIL AND
N/A	NICARAGUA	GAS ENERGY - OIL AND
N/A	NICARAGUA	GAS
N/A	NICARAGUA	ENERGY - OIL AND GAS ENERGY - OIL AND
N/A	NICARAGUA	GAS ENERGY - OIL AND
N/A	NICARAGUA	GAS FINANCIAL
BANCO DE CREDITO CENTROAMERICANO, S.A.	NICARAGUA	SERVICES FINANCIAL
FONDO NICARAGUENSE PARA EL DESARROLLO COMUNITARIO	NICARAGUA	SERVICES
COLITE NICARAGUA S.A.	NICARAGUA	SERVICES
N/A	NICARAGUA	SERVICES
AES NIGERIA BARGE LIMITED	NIGERIA	ENERGY - POWER
CONTOURGLOBAL SOLUTIONS (NIGERIA) LTD.	NIGERIA	ENERGY - POWER
CONTOURGLOBAL SOLUTIONS (NIGERIA) LTD.	NIGERIA	ENERGY - POWER
COCA-COLA NIGERIA LIMITED	NIGERIA	MANUFACTURING
AMERICAN INTERNATIONAL SCHOOL OF ABUJA	NIGERIA	SERVICES
AMERICAN INTERNATIONAL SCHOOL OF ABUJA	NIGERIA	SERVICES
N/A	NIGERIA	SERVICES
HABIBULLAH COASTAL POWER (PRIVATE) COMPANY PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY	PAKISTAN	ENERGY - POWER
("WAPDA") PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY	PAKISTAN	MANUFACTURING
("WAPDA")	PAKISTAN	MANUFACTURING
DIRECTORATE GENERAL PROCUREMENT	PAKISTAN	SERVICES
INTERNATIONAL RESCUE COMMITTEE - PAKISTAN	PAKISTAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	PAKISTAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	PAKISTAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	PAKISTAN	SERVICES
SWEETWATER PAKISTAN (PRIVATE) LTD.	PAKISTAN	SERVICES
THE ASIA FOUNDATION	PAKISTAN	SERVICES
THE ASIA FOUNDATION	PAKISTAN	SERVICES



Project Name INSURANCE	Country	Sector
COLITE PANAMA, S.A.	PANAMA	SERVICES
N/A	PARAGUAY	SERVICES
FINANCIERA TFC, S.A.	PERU	FINANCIAL SERVICES
GLOBOKAS PERU S.A.C.	PERU	MANUFACTURING
GLOBOKAS PERU S.A.C.	PERU	MANUFACTURING
N/A	PERU	SERVICES
TOTAL ARTEFACTOS S.A.	PERU	SERVICES
CE CASECNAN WATER AND ENERGY COMPANY, INC.	PHILIPPINES	ENERGY - POWER
CE CASECNAN WATER AND ENERGY COMPANY, INC.	PHILIPPINES	ENERGY - POWER
NATIONAL POWER CORPORATION ("NAPOCOR")	PHILIPPINES	ENERGY - POWER
MIDAMERICAN ENERGY HOLDINGS CO	PHILIPPINES	ENERGY - POWER FINANCIAL
SEEDFINANCE CORPORATION	PHILIPPINES	SERVICES
N/A	PHILIPPINES	SERVICES
THE ASIA FOUNDATION	PHILIPPINES	SERVICES
THE ASIA FOUNDATION	PHILIPPINES	SERVICES
ASIA FOUNDATION	RISK	SERVICES
INTERNATIONAL RESCUE COMMITTEE	RISK	SERVICES
S.C. EMPIRE TOWER S.R.L.	ROMANIA	CONSTRUCTION
OPEN JOINT STOCK COMPANY TERMINAL	RUSSIA	CONSTRUCTION FINANCIAL
OOO MORGAN STANLEY BANK	RUSSIA	SERVICES
INSTRUM-RAND	RUSSIA	MANUFACTURING
	RUSSIA	MANUFACTURING
ZAO "ISP OPTICS, SAINT-PETERSBURG"	RUSSIA	MANUFACTURING
	RUSSIA	SERVICES
MINISTRY OF HEALTH OF SAMARA OBLAST	RUSSIA	SERVICES
SAMARA OBLAST	RUSSIA	SERVICES
SORWATHE S.A.R.L.	RWANDA	MANUFACTURING
INTERNATIONAL RESCUE COMMITTEE, INC.	RWANDA	SERVICES
MINISTRY OF INTERIOR AFFAIRS OF THE REPUBLIC OF SERBIA	SERBIA	COMMUNICATION
INTERNATIONAL RESCUE COMMITTEE, INC BRANCH OFFICES	SIERRA LEONE	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	SOMALIA	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	SOMALIA	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	SOMALIA	SERVICES



Project Name INSURANCE	Country	Sector
GRANTON SAFARIS CC	SOUTH AFRICA	AGRICULTURE
N/A	SOUTH AFRICA	SERVICES
MATH HYDRO POWER (PVT) LIMITED	SRI LANKA	ENERGY - POWER
RELIEF INTERNATIONAL BRANCH OFFICES	SRI LANKA	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICES	SRI LANKA	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICES	SRI LANKA	SERVICES
THE ASIA FOUNDATION	SRI LANKA	SERVICES
THE ASIA FOUNDATION	SRI LANKA	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	TAJIKISTAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	TAJIKISTAN	SERVICES
RELIEF INTERNATIONAL BRANCH OFFICE	TAJIKISTAN	SERVICES
ENTERPRISE HOMES TANZANIA LIMITED, CARE OF ISHENGOMA, MASHA ENTERPRISE HOMES TANZANIA LIMITED, CARE OF	TANZANIA	CONSTRUCTION
ISHENGOMA, MASHA	TANZANIA	CONSTRUCTION
MUTUAL VENTURES LIMITED	TANZANIA	CONSTRUCTION
INTERNATIONAL RESCUE COMMITTEE, INC. BRANCH OFFICES	TANZANIA	SERVICES
N/A	TANZANIA	SERVICES
IRC BRANCH OFFICE	THAILAND	SERVICES
THE ASIA FOUNDATION BRANCH OFFICES	THAILAND	SERVICES
THE ASIA FOUNDATION BRANCH OFFICES	THAILAND	SERVICES ENERGY - OIL AND
WEST AFRICAN GAS PIPELINE COMPANY LIMITED	TOGO	GAS
CONTOURGLOBAL TOGO S.A. AMERICAN COOPERATIVE SCHOOL OF TUNIS (ACST)	TOGO	ENERGY - POWER
ASSOCIATION	TUNISIA	SERVICES
THE AMERICAN COOPERATIVE SCHOOL OF TUNISIA	TUNISIA	SERVICES
THE AMERICAN COOPERATIVE SCHOOL OF TUNISIA	TUNISIA	SERVICES
GENERAL DIRECTORATE OF HIGHWAYS	TURKEY	CONSTRUCTION
DOGA ENERJI URETIM SANAYI VE TICARET L.S. ASYA KATILIM BANKASI A.S.	TURKEY	ENERGY - POWER FINANCIAL
ASYA KATILIM BANKASI A.S. M/N BUTLER MIMARLAR ARASTIRMA TASARI VE YAPI LTD. STI.	TURKEY	SERVICES TOURISM/HOTELS
M/N BUTLER MIMARLAR ARASTIRMA TASARI VE YAPI LTD. STI. M/N BUTLER MIMARLAR ARASTIRMA TASARI VE YAPI LTD. STI.	TURKEY	TOURISM/HOTELS
M/N BUTLER MIMARLAR ARASTIRMA TASARI VE YAPI LTD. STI. M/N BUTLER MIMARLAR ARASTIRMA TASARI VE YAPI LTD. STI.	TURKEY	TOURISM/HOTELS
IVI/IN DUTLER IVIIIVIARLAR ARAƏTIRIVIA TAƏARI VE YAPTLTD. STI.	IUKKEI	I OURISIVI/HUTELS



Project Name INSURANCE	Country	Sector
CAICOS TELEVISION HOLDINGS LTD.	TURKEY & CAICOS ISLANDS	COMMUNICATION
INTERNATIONAL RESCUE COMMITTEE, INC BRANCH OFFICES	UGANDA	SERVICES
A. STUCKI - RAIL	UKRAINE	MANUFACTURING
A. STUCKI - RAIL	UKRAINE	MANUFACTURING
A. STUCKI RAIL	UKRAINE	MANUFACTURING
A. STUCKI RAIL	UKRAINE	MANUFACTURING
N/A	UKRAINE	SERVICES
UNIVERSAL STAR CO.	UKRAINE	SERVICES
EL SALADERO, UY SRL	URUGUAY	AGRICULTURE
TASHKENT INTERNATIONAL SCHOOL	UZBEKISTAN	SERVICES
KHIVA MALIKASI, LLC	UZBEKISTAN	TOURISM/HOTELS
KHIVA MALIKASI, LLC	UZBEKISTAN	TOURISM/HOTELS
MALIKA BARIKHASI, LLC/MALIKA HOTEL BUKHARA	UZBEKISTAN	TOURISM/HOTELS
CONSOLIDADA DE FERRYS C.A. (CONFERRY)	VENEZUELA	TRANSPORTATION
CONSOLIDADA DE FERRYS C.A. (CONFERRY)	VENEZUELA	TRANSPORTATION
CONSOLIDADA DE FERRYS, C. A. (CONFERRY)	VENEZUELA	TRANSPORTATION
VIETNAMNET MEDIA JOINT STOCK COMPANY	VIETNAM	COMMUNICATION
KIDWELL INTERNATIONAL POWER VIETNAM COMPANY LIMITED	VIETNAM	ENERGY - POWER
N/A	VIETNAM	SERVICES
GAZA POWER GENERATING PRIVATE LIMITED COMPANY	WEST BANK & GAZA	ENERGY - POWER
GAZA POWER GENERATING PRIVATE LIMITED COMPANY	WEST BANK & GAZA	ENERGY - POWER
N/A	WEST BANK & GAZA	SERVICES
RELIEF INTERNATIONAL HEBRON CENTER OF EXCELLENCE	WEST BANK & GAZA	SERVICES
RELIEF INTERNATIONAL HEBRON CENTER OF EXCELLENCE	WEST BANK & GAZA	SERVICES
RELIEF INTERNATIONAL HEBRON CENTER OF EXCELLENCE	WEST BANK & GAZA	SERVICES
NATIONAL MILLING COMPANY LIMITED	ZAMBIA	MANUFACTURING
HILL ESTATES LIMITED, P.O. BOX 31617	ZAMBIA	SERVICES
HILL ESTATES LIMITED, P.O. BOX 31617	ZAMBIA	SERVICES
N/A	ZAMBIA	SERVICES
MERODENT ZIMBABWE (PVT.) LTD.	ZIMBABWE	MANUFACTURING



Project Name INSURANCE	Country	Sector
MERODENT ZIMBABWE (PVT.) LTD.	ZIMBABWE	MANUFACTURING
MERODENT ZIMBABWE (PVT.) LTD.	ZIMBABWE	MANUFACTURING
MERODENT ZIMBABWE (PVT.) LTD.	ZIMBABWE	MANUFACTURING



Project Name	Country	Sector
FUNDS		
ACF INVESTMENTS B, LTD	LATIN AMERICA REGIONAL	FIN
ACF INVESTMENTS, LTD	LATIN AMERICA REGIONAL	FIN
ACF INVESTORS, LTD.	LATIN AMERICA REGIONAL	FIN
ACTIS SOUTH ASIA FUND 2, L.P.	ASIA REGIONAL	FIN
AFRICA TELECOM, MEDIA & TECHNOLOGY FUND LLC	AFRICA REGIONAL	FIN
ALSIS LATIN AMERICA FUND, L.P.	LATIN AMERICA REGIONAL	FIN
AQUA PARTNERS LP	ALL OPIC COUNTRIES	FIN
ASIA DEVELOPMENT PARTNERS II, L.P.	ASIA REGIONAL	FIN
ASIA DEVELOPMENT PARTNERS, L.P.	ASIA REGIONAL	FIN
BANCROFT EASTERN EUROPE FUND LP	EUROPE REGIONAL	FIN
CAPITAL ALLIANCE PROPERTY INVESTMENT CO., LP	NIGERIA	FIN
CLEARWATER CAPITAL PARTNERS INVESTMENTSII LP	ASIA REGIONAL	FIN
DARBY LATIN AMERICAN HOLDINGS, L.P.	LATIN AMERICA REGIONAL	FIN
DARBY PROBANCO II FUND	LATIN AMERICA REGIONAL	FIN
DRAPER INTERNATIONAL INDIA FUND	INDIA	FIN
ECP AFRICA FIII INVESTMENT LLC	AFRICA REGIONAL	FIN
ECP AFRICA FUND II INVESTMENTS LLC	AFRICA REGIONAL	FIN
ECP MENA GROWTH INVESTMENTS, LLC	MIDDLE EAST REGIONAL	FIN
ETHOS PRIVATE EQUITY FUND V	AFRICA REGIONAL	FIN
EUROMENA FUND II, L.P.	MIDDLE EAST REGIONAL	FIN
FONDO ALSIS MEXICO DE VIVIENDA DE INTERES SO	LATIN AMERICA REGIONAL	FIN
FOURSAN CAPITAL PARTNERS I	JORDAN	FIN
GLOBAL ENVIRONMENT EMERGING MARKET FUND	ALL OPIC COUNTRIES	FIN
GLOBAL ENVIRONMENT EMERGING MARKETS FUND, II	ALL OPIC COUNTRIES	FIN
GREYLOCK AFRICA OPPORTUNITY FUND I	AFRICA REGIONAL	FIN
HELIOS SUB-SAHARAN AFRICA FUND I, L.P.	AFRICA REGIONAL	FIN
INDIA PRIVATE EQUITY FUND	INDIA	FIN
ISRAEL GROWTH FUND	ISRAEL	FIN
LATIN POWER TRUST III, L.P.	LATIN AMERICA REGIONAL	FIN
MILLENNIUM GLOBAL AFRICA OPPORTUNITIES FUND	AFRICA REGIONAL	FIN
MODERN AFRICA GROWTH AND INVESTMENT COMPANY	AFRICA REGIONAL	FIN
MODERN AFRICA GROWTH AND INVESTMENT FUND 2	AFRICA REGIONAL	FIN
NEW CENTURY CAPITAL PARTNERS, L.P.	NIS REGIONAL	FIN
NEW CENTURY CAPITAL PARTNERS, L.P.	EUROPE REGIONAL	FIN
PALADIN REALTY EURASIA INVESTORS, L.P.	TURKEY	FIN
PALADIN REALTY LATIN AMERICA INVESTORS II, LP	LATIN AMERICA REGIONAL	FIN
PALADIN REALTY LATIN AMERICA INVESTORS III	LATIN AMERICA REGIONAL	FIN



Project Name FUNDS	Country	Sector
RUSSIA PARTNERS COMPANY, L.P.	NIS REGIONAL	FIN
RUSSIA PARTNERS COMPANY, L.P.	NIS REGIONAL	FIN
RUSSIA PARTNERS II "O" SERIES, L.P.	NIS REGIONAL	FIN
SAWHF PVE (SA)	SOUTH AFRICA	FIN
SOUTH AMERICA PRIVATE EQUITY GROWTH FUND, LP	LATIN AMERICA REGIONAL	FIN
SOUTHEAST EUROPE EQUITY FUND II, L.P.	EUROPE REGIONAL	FIN
THE GREAT CIRCLE FUND L.P. (MISF)	ALL OPIC COUNTRIES	FIN
VIRGIN GREEN FUND GLOBAL I, L.P.	ALL OPIC COUNTRIES	FIN



# APPENDIX C

# **CONVERSION FACTORS AND SOURCES**

Below are additional emission factors, conversions, and other factors used in the emission estimates and sources.

Value	Unit of Measure	Source
8,000	Hours per Year	Conservative Operating Assumption – EIA Form 923 data, 2007
333	Days per Year	Calculated from Hours per Year
1,000	kWh per MWh	The Climate Registry, Appendix C
1,000,000	Btu per MMBtu	The Climate Registry, Appendix C
251.98	Btu per cal	Perry's Chemical Engineering Hand Book, Table 1-7
0.001	metric tonnes per kg	The Climate Registry, Appendix C
0.0011023	Short Tons per kg	The Climate Registry, Appendix C
1,000,000	scf per Mcf	The Climate Registry, Appendix C
0.02832	m3 per scf	The Climate Registry, Appendix C
0.9072	metric tonnes per short ton	The Climate Registry, Appendix C
0.000001	metric tonnes per g	The Climate Registry, Appendix C
0.0000011023	short tons per g	The Climate Registry, Appendix C
907.18	kg per short ton	The Climate Registry, Appendix C
2.2046	lbs per kg	The Climate Registry, Appendix C
2204.62	lbs per metric tone	The Climate Registry, Appendix C
2,000	lbs per short ton	The Climate Registry, Appendix C
42	gallons per barrel	The Climate Registry, Appendix C
53.06	kg CO2 per MMBtu natural gas	The Climate Registry, Table 12.1
73.15	kg CO2 per MMBtu diesel (fuel oil)	The Climate Registry, Table 12.1
93.46	kg CO2 per MMBtu coal (bituminous)	The Climate Registry, Table 12.1
97.09	kg CO2 per MMBtu coal (sub- bituminous)	The Climate Registry, Table 12.1
74.54	kg CO2 per MMBtu crude oil	The Climate Registry, Table 12.1
0.0546	kg CO2 per scf natural gas	The Climate Registry, Table 12.1
78.80	kg CO2 per MMBtu Residual Fuel Oil (#5 & 6)	The Climate Registry, Table 12.1
1029	Btu per scf natural gas	The Climate Registry, Table 12.1
5.825	MMBtu per barrel diesel (fuel oil)	The Climate Registry, Table 12.1
24.93	MMBtu per short ton coal (bituminous)	The Climate Registry, Table 12.1
17.25	MMBtu per short ton coal (sub- bituminous)	The Climate Registry, Table 12.1
5.8	MMBtu per barrel crude oil	The Climate Registry, Table 12.1
893	g CO2 per kWh generated using coal	IFC Guidance Note 3, Annex A section A-(i)
659	g CO2 per kWh generated using oil	IFC Guidance Note 3, Annex A section A-(i)
395	g CO2 per kWh generated using natural gas	IFC Guidance Note 3, Annex A section A-(i)



# APPENDIX D

# ANNOTATED BIBLIOGRAPHY

American Petroleum Institute. <u>Compendium of Greenhouse Gas Emissions Methodologies for</u> <u>the Oil and Gas Industry</u>. February 2004. <a href="http://www.api.org/ehs/climate/new/upload/2004">http://www.api.org/ehs/climate/new/upload/2004</a>

For those projects in Tier B [Accroven SRL, Various Egypt Subsidiaries (Apache), EP Interoil, RPK-Vysotsk (Lukoil II)] for which there were no consumption volumes or other data to base an emissions estimate from, examples from API were used. The size of operations for these examples was compared to the size of the projects in Tier B resulting in a multiplication factor which was applied to the API example's emissions estimate to arrive at an approximate estimate for the Tier B project. Additionally, a methane fugitive emissions factor for compression was used for the Wilpro Energy Services projects as this factor was sourced from the API Compendium of Greenhouse Gas Emissions, Table 6-5.

California Energy Commission, Electric Power Research Institute. <u>Implementing Advanced</u> <u>Control and Power Technologies to Improve Energy Efficiency and Reduce Operating Costs for</u> <u>U.S. Petroleum Refining and Petrochemical Manufacturing.</u> CEC-500-2006-055. April 2006.

No information was provided in the project description for the Equate Petrochemical facility indicating its size or energy consumption. The average size of petrochemical facilities in the Middle East, of ~850,000 tpy, was sourced from the Oil and Gas Journal. Specific energy requirements and generation sources expected from a petrochemical facility of this size were sourced from the CEC report. This data enabled the qualified estimation of emissions from this facility.

The Climate Registry. <u>General Reporting Protocol Version 1.1.</u> May 2008. <<u>http://www.theclimateregistry.org/downloads/GRP.pdf</u>>

The Climate Registry is the broadest reaching registry in North America with participation from all Canadian provinces, six Mexican states, and forty U.S. states. The Climate Registry's General Reporting Protocol is based on the WRI/WBCSD GHG Protocol, the "gold" standard in GHG Accounting and Reporting. Emission, heat content, and conversion factors from this document were used in the analysis (Table 12.1 and Appendix C).

Energy Information Administration (EIA) U.S. Natural Gas Consumption by End Use. 2003-2007.

<http://tonto.eia.doe.gov/dnav/ng/ng cons sum dcu nus a.htm>

Emissions from natural pipeline transport are very segment specific, varying with pipeline infrastructure, compression energy source, and segment distance. In order to



define the related emissions for representative pipeline hauls in the absence of system specifications, Pace assumed pipeline fuel consumption and both combustion and noncombustion CO2e emissions based on EIA natural gas consumption data and data from the U.S. GHG Inventory released by EPA in 2008. This data yielded an average fugitive emission loss rate of 1.7% (per unit volume), and fugitive emissions factor of 4,297 lbs CO2 per MMscfd. The emissions associated with combustion required to move natural gas was calculated to be3,439 lbs CO2 per MMscd.

International Energy Agency. <u>Coal in Indonesia in 2006</u>. <<u>http://www.iea.org/Textbase/stats/coaldata.asp?COUNTRY\_CODE=ID</u>>

The coal profile for Indonesia in 2006 specifies the type of coal consumed and what it was combusted for. The table provided by IEA, details the volume of coal used in electricity plants as being 100% sub-bituminous. This information was necessary to calculate the emissions for Paiton Energy as each coal type has a different emissions factor and heat content value.

International Energy Agency. Coal in Morocco in 2006. <<u>http://www.iea.org/Textbase/stats/coaldata.asp?COUNTRY\_CODE=MA</u>>

The coal profile for Morocco in 2006 specifies the type of coal consumed and what it was combusted for. The table provided by IEA, details the volume of coal used in electricity plants as being 100% bituminous. This information was necessary to calculate the emissions for Jorf Lasfar Energy as each coal type has a different emissions factor and heat content value.

International Finance Corporation. <u>Guidance Note 3: Pollution Prevention and Abatement.</u> July 31, 2007. <<u>http://www.ifc.org/ifcext/sustainability.nsf/Content/GuidanceNotes</u>>

This guidance note by the IFC provides suggested GHG emissions estimation methodologies for the energy and industrial sectors. The table in Annex A provides the capacity for electric generating technologies (oil = 25MW, coal = 18MW, gas = 41MW) that would emit 100,000 metric tonnes of CO2e per year. The table also provides the emissions factor which was applied to the electric generation projects for which no throughput or consumption volumes were available.

Nye Thermodynamics Corporation. Gas Turbine Specifications by Manufacturer. Nuovo Pignone turbine specifications.

<<u>http://www.gas-turbines.com/specs/manuf.htm</u>>

The project descriptions for Wilpro Energy Services (Pigap) and Wilpro Energy Services (El Furrial) indicate that the compression if driven by Nuovo Pignone Gas Turbines. Pace estimated energy requirements from compression levels depicted for each project and consulted specifications of the appropriately sized Nuovo Pignone gas turbines. Efficiency and other specifications of these turbines were collected from the Nye Thermodynamics Corporation website documenting gas turbine specifications by manufacturer.



Oil and Gas Journal. "Special Report: Worldwide Ethylene Capacity Increases 2 Million TPY in 2007," Volume 106, July 28, 2008.

No information was provided in the project description for the Equate Petrochemical facility indicating its size or energy consumption. The average size of petrochemical facilities in the Middle East, of ~850,000 tpy, was sourced from the Oil and Gas Journal. Specific energy requirements and generation sources expected from a petrochemical facility of this size were sourced from the CEC report. This data enabled the qualified estimation of emissions from this facility.

Trans Alaska Pipeline Environmental Impact Statement Document, Energy Requirements for Conservation Potential. February 15, 2001. <<u>http://tapseis.anl.gov/documents/docs/Section\_4\_9\_May2.pdf</u>>

Energy demand factors for crude pipeline transport were sourced from documents associated with the Environmental Impact Statement for the Trans Alaska Gas pipeline in order to calculate GHG emissions for the Baku-Tblisi-Ceyhan Pipeline.

United States Environmental Protection Agency.(EPA). <u>AP 42: Compilation of Air Pollutant</u> <u>Emission Factors, Volume 1 Stationary Point and Area Sources.</u> "Appendix A: Miscellaneous Data & Conversion Factors". September 1985. <<u>http://www.epa.gov/ttn/chief/ap42/</u>>

Conversion factors not provided by The Climate Registry were obtained from U.S. EPA's AP 42 document, specifically for the density of natural gas and crude oil and the conversion of kilometers to miles.

United States Environmental Protection Agency.(EPA). <u>Inventory of U.S. GHG Emissions and</u> <u>Sinks, 1990-2006</u>. Tables 3-34 and 3-36. <a href="http://www.epa.gov/climatechange/emissions/downloads/08">http://www.epa.gov/climatechange/emissions/downloads/08</a> CR.pdf>

Emissions from natural pipeline transport are very segment specific, varying with pipeline infrastructure, compression energy source, and segment distance. In order to define the related emissions for representative pipeline hauls in the absence of system specifications, Pace assumed pipeline fuel consumption and both combustion and non-combustion CO2e emissions based on EIA natural gas consumption data and data from the U.S. GHG Inventory released by EPA in 2008. This data yielded an average fugitive emission loss rate of 1.7% (per unit volume), and fugitive emissions factor of 4,297 lbs CO2 per MMscfd. The emissions associated with combustion required to move natural gas was calculated to be 3,439 lbs CO2 per MMscd.