INDUSTRY OVERVIEW

Certain information and statistics relating to our industry provided in this section and elsewhere in this document have been derived from official government sources. There can be no assurance that these sources have compiled such data and information on the same basis or with the same degree of accuracy or completeness as are found in other industries or other jurisdictions. Moreover, neither we nor any of our advisors, have independently verified this information or these statistics. For more information on the sources of information and statistics used in this section, see "—About This Section".

GLOBAL ENERGY AND POWER INDUSTRY

The year 2008 saw a slow-down in global primary energy consumption, thus breaking the above-average year-on-year growth witnessed from 2003 to 2007. World primary energy consumption grew by 1.7% from 2007 to 2008, the slowest rate since 2001. U.S. primary energy consumption decreased by 2.6% from 2007 to 2008, representing the country's largest decline since 1982.

For the first time, primary energy consumption from non-OECD countries surpassed that of OECD's. Chinese primary energy consumption grew by 7.5% in 2008, compared with 8.1% in the previous year. Nevertheless, the country accounted for nearly 75% of the growth in global primary energy consumption in 2008. The other two significant growth regions for 2007 to 2008 were the Middle East and Africa, which exhibited above-average growth at 6.2% and 4.4% respectively. It should be noted though, that these two regions combined still only account for about half the energy consumption of China. In the recent BP Statistical Review of World Energy 2009 Report, non-OECD regions, including India and China, are expected to contribute significantly to the long-term energy demand, due to their high projected economic and population growth. In the OECD region, where economies are relatively mature and the population growth rates are lower, growth in energy demand is expected to grow at a steadier pace.

The following table sets forth, for the periods indicated, the world's primary energy consumption by region.

		I	For the ye	ar ended I	December	31,		% of total	07-08	02-08
	2002	2003	2004	2005	2006	2007	2008	in 2008	Growth %	CAGR %
			(in mill	ions of to	nnes of oil	equivale	nt, except	for percent	ages)	
Europe & Eurasia	2,835	2,877	2,926	2,938	2,979	2,957	2,965	26.3%	0.3%	0.6%
North America	2,729	2,752	2,804	2,819	2,803	2,849	2,799	24.8%	-1.8%	0.4%
China	1,058	1,229	1,429	1,572	1,723	1,863	2,003	17.7%	7.5%	11.2%
Rest of Asia Pacific	1,681	1,716	1,799	1,858	1,895	1,953	1,979	17.5%	1.3%	2.8%
Middle East	444	463	493	533	555	578	614	5.4%	6.2%	4.7%
South and Central										
America	466	470	491	512	538	564	580	5.1%	2.9%	3.2%
Africa	289	302	318	324	327	341	356	3.2%	4.4%	3.0%
World Total	9,503	9,811	10,259	10,555	10,821	11,104	11,296	100%	1.7%	2.5%

Source: BP Statistical Review 2009

Numbers may not add up to total due to rounding

The following table sets forth the world's primary energy consumption by fuel type in 2008.

	For the year ended December 31, 2008	% of total in 2008	07-08 Growth %
	(in millions of t	tonnes of oil equivale percentages)	nt, except for
Oil	3,928	34.8%	-0.3%
Coal	3,304	29.2%	3.4%
Natural gas	2,726	24.1%	2.8%
Hydro electric	718	6.4%	3.1%
Nuclear energy	620	5.5%	-0.5%
Total	11,296	100.0%	1.7%

Source: BP Statistical Review 2009

INDUSTRY OVERVIEW

According to BP Statistical Review of World Energy 2009, in 2008, global oil consumption saw its largest decline since 1983, and declined by 0.5% or approximately 420,000 b/d. Oil consumption in the OECD region declined by 3.1%, or approximately 1.5 million b/d, while non-OECD economies' consumption also declined to 1.1 million b/d. On the other hand, global demand for natural gas grew by 2.5% in 2008, driven primarily by the Middle East's robust domestic consumption as well as intra-regional trade. In 2008, natural gas reached 24% of global primary energy demand. Coal remains the fastest growing fuel, despite its demand slow-down in 2008, and China continues to be the largest consumer in the world. It should be noted that these statistics do not just include power generation, but also transportation.

World electricity generation rose by 1.6% from 2007 to 2008. The Asia-Pacific region as well as Europe & Eurasia are the two largest regions in terms of electricity generation, accounting for 35.9% and 26.5% respectively of the global total in 2008. In terms of countries, the US and China continue to lead in the global electricity generation, having generated 4,316 and 3,433 Terawatt-hours respectively in 2008.

According to EIA World Energy Outlook 2009, the shares of natural gas and coal for electricity generation worldwide are expected to increase further. By 2030, the share of natural gas is forecast to rise to 21.4%, from 20% in 2006, while the share of coal is expected to increase to 43% from a share of 41% in 2006. The relative environmental benefits and higher efficiency that can be achieved from gas-fired plants make natural gas an attractive fuel choice. However, volatile prices and concern over the security of supply act as restraints in some regions.

The following table sets forth, for the periods indicated, the world's electricity generation by region.

		F	or the year	r ended D	ecember 3	1,		% of total	07-08	02-08	
	2002	2003	2004	2005	2006	2007	2008	in 2008	Growth %	CAGR %	
				(in tera	awatt-hou	rs, except	for percent	ages)			
Europe & Eurasia	4,808	4,927	5,036	5,116	5,229	5,301	5,354	26.5%	1.0%	1.8%	
North America	4,845	4,861	4,967	5,088	5,103	5,222	5,172	25.6%	-1.0%	1.1%	
Rest of Asia											
Pacific	3,036	3,162	3,302	3,437	3,565	3,710	3,778	18.9%	1.9%	3.7%	
China	1,654	1,911	2,203	2,500	2,866	3,282	3,433	17.0%	4.6%	12.9%	
South and Central											
America	812	855	901	938	988	1,024	1,050	5.2%	2.5%	4.4%	
Middle East	521	546	579	625	664	699	739	3.7%	5.7%	6.0%	
Africa	481	507	539	560	584	613	638	3.2%	4.2%	4.8%	
World total	16,191	16,804	17,564	18,303	19,037	19,890	20,202	100.0%	1.6%	3.8%	

Source: BP Statistical Review 2009

Numbers may not add up to total due to rounding

Global total installed capacity grew from 3,519 GW in 2002 to 4,013 GW in 2006, representing a four-year CAGR of 3.3%. This information is the latest available from the Energy Information Agency. The fastest growth has come from China, with an 15.0% four-year CAGR from 2002 to 2006.

The following table sets forth, for the periods indicated, the worlds installed capacity by region.

	Fo	or the year	r ended D	ecember .	31,	% of total	05-06	02-06
	2002	2003	2004	2005	2006	in 2006	Growth %	CAGR %
	(i	n <mark>GW, e</mark> x	cept for p	ercentage	s)			
Europe & Eurasia	1,085	1,112	1,132	1,139	1,155	28.8%	1.3%	1.6%
North America	1,040	1,089	1,110	1,128	1,139	28.4%	0.9%	2.3%
China	357	391	442	517	624	15.6%	20.7%	15.0%
Rest of Asia & Oceania (ex. China)	625	630	633	635	620	15.4%	-2.4%	-0.2%
South and Central America	197	204	210	215	220	5.5%	2.5%	2.8%
Middle East	112	117	126	135	145	3.6%	6.8%	6.7%
Africa	103	104	105	108	110	2.7%	2.0%	1.6%
World total	3,519	3,646	3,758	3,878	4,013	100.0%	3.5%	3.3%

Source: China Electrical Power Year Book 2008 for China data; EIA for the rest of the data

INDUSTRY OVERVIEW

The following table sets forth, for the periods indicated, power equipment investment, as determined by new orders, in the world's largest markets by region. The region is determined by the location at which the power equipment is planned to be used.

					Fo	or the y	ear en	ded De	cember	· 31,					% of t	otal	02-0	08
	20	02	20	03	20	04	20	05	20	06	20	07	20	08	in 20	08	CAG	R %
	GW	\$Bn	GW	\$Bn	GW	\$Bn	GW	\$Bn	GW	\$Bn	GW	\$Bn	GW	\$Bn	GW	\$Bn	GW	\$Bn
China	29.0	29.0	149.0	153.0	69.0	71.0	46.0	53.0	41.0	52.0	113.0	183.0	119.0	222.0	46.9%	52.7%	26.5%	40.4%
Rest of																		
Asia	11.0	10.0	30.0	30.0	22.0	21.0	25.0	22.0	28.0	34.0	95.0	134.0	60.0	92.0	23.6%	21.9%	32.7%	44.8%
Europe	15.0	11.0	14.0	13.0	12.0	11.0	16.0	14.0	28.0	38.0	46.0	75.0	38.0	64.0	15.0%	15.2%	16.8%	34.1%
North																		
America	15.0	11.0	8.0	7.0	13.0	12.0	7.0	10.0	16.0	22.0	21.0	37.0	20.0	27.0	7.9%	6.4%	4.9%	16.1%
Middle																		
East	7.0	6.0	12.0	9.0	18.0	15.0	16.0	14.0	13.0	15.0	36.0	36.0	17.0	16.0	6.7%	3.8%	15.9%	17.8%
$Total^{(1)}$.	77.0	67.0	213.0	212.0	134.0	130.0	110.0	113.0	126.0	161.0	311.0	465.0	254.0	421.0	100.0%	100.0%	<u>22.0</u> %	35.8%

Source: McCoy Power Report 2008

(1) Exclude amounts for certain regions, including Africa and South America, which amounts Frost & Sullivan Limited considered to be insignificant.

Numbers may not add up to total due to rounding

Demand for power equipment is forecast to continue to increase. This is driven by rising GDP levels and increasing access to electricity. Demand is also expected to come from climate change and the need for greater energy efficiency. This is forecast to mean greater demand for renewable technologies such as wind and solar, low carbon technologies such as nuclear and solutions to reduce the emissions and maximize the efficiencies of both gas and coal-fired plants.

CHINA POWER GENERATION INDUSTRY

In reports released by the Chinese National Bureau of Statistics, the Chinese economy expanded at its slowest pace and grew by only 9.0% year-on-year in 2008 after expanding by 13.0% in the previous year, as the global recession adversely impacted demand for exports. The country's industrial output growth for 2008 was 12.9%. Moreover, Chinese electricity generation growth declined to an eight-year low, increasing by 4.6% in 2008, as the manufacturing sector scaled back production and shut down operations due to declining orders.

According to the China Electricity Council, or CEC, China's total investment in its power infrastructure, including power plants and power grids, stood at RMB 576.3 billion (US\$84 billion) in 2008, representing a 1.5% increase from 2007. Nearly half of these investments were channeled towards power grid construction. The country's commitment to the development of clean energy is underscored by higher investment in nuclear and wind power, which increased by 72% and 88% respectively in 2008. In the same period, investment in coal-fired power plants dropped by 22%, although it should be pointed out that investment in coal-fired plants was exceptionally high in 2007. China has also set a goal to reduce energy consumption per unit of gross domestic product by 20% and pollution by 10% by 2010 from its levels in 2005 as outlined in the country's 11th Five-Year Plan for National Economic and Social Development.

The following table sets forth, for the periods indicated, China's total installed capacity.

		Fo	r the year	ended De	ecember 3	1,		02-08
	2002	2003	2004	2005	2006	2007	2008	CAGR %
			(in G	W, excep	t for perc	entages)		
Total installed capacity	357	391	442	517	624	713	793	14.2%
Incremental installed capacity	18	35	51	75	107	90	80	
Increase (%)	5.5%	9.5%	13.0%	17.0%	20.7%	14.3%	11.2%	

Source: China Electric Power Yearbook 2008

INDUSTRY OVERVIEW

Owing to the country's abundant indigenous coal resources, China is forecast to continue to use coal as a major source of fuel in the near-term. In 2008, 75.9% of the country's installed capacity came from thermal sources. However, the share of nuclear and wind is forecast to grow in the future. In May 2009, the Chinese government launched a RMB 3 trillion (\$440 billion) stimulus package to expand the country's use of renewable energy sources (excluding hydropower), from the current 1.5% to 6.0% of its overall energy use by 2020.

The following table sets forth China's installed capacity in 2008 by fuel type.

	GW in 2008	% of total
Thermal	601.3	75.9%
Hydro	171.5	21.6%
Wind	8.9	1.1%
Nuclear	8.9	1.1%
Other	1.9	%
Total	792.5	<u>100.0</u> %

Source: China Electricity Council

Numbers may not add up to total due to rounding

GLOBAL BOILER MARKET

The focus of this section is principally on utility boilers. For smaller industrial boilers, the market is much more fragmented and is not covered in this section.

Although the economic slow-down is expected to reduce boiler demand in the short-term, the medium-to-long-term trend is for a consistently high demand for boilers, according to Frost & Sullivan. This is caused by a number of different factors. As GDP levels resume their continuing trend upwards, global power demand is forecast to rise as there is a close relationship between the two and this inevitably means more power plants required according to Frost & Sullivan Limited. Increasing living standards, leading to increasing ownership of durable household goods continues to increase according to Frost & Sullivan Limited and boosts the demand for power. Rural electrification is also an important factor, with more global citizens each year receiving access to electricity, and new capacity is needed to meet this demand. The revenue generated and volume sold rose from US\$2.3 billion and 195 units respectively in 2002, to US\$22.9 billion and 311 units in 2008 according to Frost & Sullivan Limited and McCoy Power Reports. Frost & Sullivan Limited has calculated that this equates to a CAGR increase of 46.8% in revenue terms. The increase in market value is faster than market volumes, as the average price per MW has substantially increased since 2002, according to Frost & Sullivan Limited.

China has been the largest boiler market in the world since 2002, according to McCoy Power Reports. In 2008, it accounted for more than 50% of both global revenues and number of units ordered. As a result of the major power shortage crisis that occurred from 2002 to 2004, the government and independent power producers made considerable investments in power plants, particularly coal-fired plants. As all coal-fired plants need a boiler, this led to a significant increase in orders in 2003. Orders were lower from 2004 to 2006, although they remained significantly above pre-2003 order volumes. 2007 saw another surge in demand, when China ordered 95,000MW of coal-fired boilers, according to Frost & Sullivan Limited. The Chinese government understands that a strong power infrastructure is required to sustain economic growth and ensure a stable supply of electricity. As a result, the demand for boilers is expected to remain at relatively high levels for the foreseeable future.

In 2008, the Rest of Asia accounted for 31.2% of units ordered and 23.5% of the global market revenues. India is the main driver of demand, with investments being made to comply with the latest five-year plan according to Frost & Sullivan Limited. Europe is the third largest with 10.3% of units ordered. This level lengthened waiting times in Europe, as the suppliers' capacity could only meet approximately 50% of the level of demand, according to Frost & Sullivan Limited.

INDUSTRY OVERVIEW

In terms of demand for new boilers as compared to retrofitting, each region has a different trend according to Frost & Sullivan Limited. In North America, the demand is likely to be focused on retrofitting existing boiler units (which is forecast to account for approximately 80% of component sales), as large-scale new orders are unlikely until the carbon trading system issues have been resolved and this is forecast to take some time. In China, new build is expected to be the preferred option according to Frost & Sullivan Limited (approximately 70% of sales). In many cases, the Chinese government prefers to decommission existing plants and rebuild them, often installing large turbines to increase overall capacity. Despite this, there is still a substantial demand for equipment for retrofit, with a large number of inefficient plants constructed pre-2002. In Europe, new build dominates according to Frost & Sullivan Limited; as many of the generating assets are aging and need to be replaced (approximately 80% new build). Finally in the Rest of Asia, new build is the preferred option according to Frost & Sullivan Limited (approximately 80%), as the average age of existing units is much lower than North America or Europe. India, a dominant country, is mostly new build.

Retrofitting will become an increasingly important market over the forecast period and this is expected to continue post-2012. In this report, the market for retrofitting is shown in tonnes and revenues for the economisers, but retrofitting projects are expected to contribute an even greater value in overall project terms because of their greater complexity. This gives those economiser manufacturers who have strong project management skills an extra potential revenue stream. Retrofits can vary in complexity from a relatively straight forward component parts replacement to a complete and total overhaul of the whole boiler.

There is also the potential in the future for greater revenues for boiler makers and component manufacturers as they look for ways to reduce carbon dioxide emissions and other greenhouse gases. This focuses on three particular areas, pre-combustion technology, oxy-combustion and post-combustion technology, which are all linked to the development of carbon capture and storage (CCS). CCS is still at a trial stage in a number of plants globally, but the initial results have been good, and the potential for the technology to revolutionize the boiler market is exceptional. If CCS can be proved to be commercially viable, it is expected to provide the largest incentive for using coal for power generation, according to Frost & Sullivan Limited.

In terms of market shares, the market is dominated by Chinese manufacturers, according to data from McCoy Power Reports. Based on tonnage in 2008, Shanghai Xinjun, Dongfang Boiler and Harbin Boiler held 32.8%, 20.3% and 19.0% of the market respectively. Between them, the three leading players held 72.1% market share. BHEL was the next largest player, with a 10.3% share, followed by Babcock & Wilcox with 6.1%. Other notable players include Alstom, Foster Wheeler and Hitachi Power.

The following table sets forth, for the periods indicated, the power generation boiler market size of the world's largest markets by region.

					For th	e yea	ır ende	ed De	cembe	er 31,					% of t	otal	02-0	8
	20	02	20	03	20)4	200)5	20	06	20	07	20	08	in 20	08	CAGI	R%
	Units	\$Bn	Units	\$Bn	Units	\$Bn	Units	\$Bn	Units	\$Bn	Units	\$Bn	Units	\$Bn	Units	\$Bn	Units	\$Bn
China	114	1.8	350	8.9	135	4.4	100	3.7	119	4.6	205	13.3	168	13.4	54.0%	58.5%	6.7%	39.7%
Rest of Asia	23	0.2	46	1	49	1.1	40	1	57	1.3	138	9.8	97	5.4	31.2%	23.5%	27.1%	73.3%
Europe	28	0.2	27	0.1	31	0.5	27	0.7	41	2.6	50	3.4	32	3.4	10.3%	14.9%	2.3%	60.7%
North America	30	0.1	11	0.2	_50	0.7	35	0.7	49	1.7	55	2.9	14	0.7	4.5%	3.1%	-11.9%	39.4%
Total ⁽¹⁾	195	2.3	434	10.2	265	6.7	202	6.1	266	10.2	448	29.4	311	22.9	100%	100%	8.1% 46.8%	

Source: Frost & Sullivan Limited

(1) Exclude amounts for certain regions, including Africa and South America, which amounts Frost & Sullivan Limited considered to be insignificant.

Numbers may not add up to total due to rounding

GLOBAL ECONOMISER MARKET

The economiser is a key piece of heat transfer equipment, typically installed in boiler systems for power plants. The economiser recovers the waste heat from the boiler's hot exhaust gas and transfers the thermal energy contained in the exhaust gas to the boiler's system fluid, or feedwater, before it enters into the boiler system. Frost & Sullivan Limited estimates that the market size for economisers in tonnage is expected to increase at a

INDUSTRY OVERVIEW

CAGR of 6.6% from 2008 to 2012. The economic downturn will have an impact in the short-term, as falling boiler orders will hit economiser sales for new build boilers. However, the retrofit market is expected to cushion the impact to a large extent, and the market is expected to rebound substantially in 2010. The need to refurbish aging capacity, the continual tightening of environmental regulations and the need to improve efficiency due to high fuel costs will all keep driving the market forward.

The economiser products can be broadly categorized into extended surface economisers and plain steel economisers. An extended surface economiser has metal fins indexed onto the plain metal tubes, which significantly extend the metal surface exposed to the heat sources. A plain steel economiser is designed and manufactured using plain steel tubes without the attachment of metal fins. The economiser market share is divided between the boiler manufacturers and specialist suppliers of economisers. Based on tonnage in 2008, the boiler manufacturers dominated the plain steel market while Greens dominated the extended surface market, with 37.5% of the global market and 66% of the market in China, the largest regional market. Greens also held 26% of the European market and 10% of the Rest of Asia market in 2008. Historically, plain steel economisers accounted for a larger share of the total market. Extended surface economisers were introduced to the market later than plain steel economisers, and there remains a sizable number of customers who do not fully appreciate the technical and cost differences between the two. While the price per tonne of an extended surface economiser is higher, boiler systems installed with extended surface economisers generally enjoy higher heat exchange per tonne or per square meter of heat exchange, and accordingly, are more efficient heat exchangers than plain steel economisers. According to Frost & Sullivan Limited, in 2008, 69% of economisers sold by tonnage were plain steel, but that percentage is expected to fall to 62% by 2012. In revenue terms, the percentage for plain steel will fall from 61% to 53%. More users will begin to focus on overall costs as compared to simple per ton capital cost when making purchasing decisions for economisers.

China continues to lead the market for both extended surface and plain steel economisers, with 41.8% and 41.7% of the total market share in terms of revenue generated in 2008. Frost & Sullivan Limited expects demand for economisers in China to decline slightly in 2009, but rebound significantly in 2010. Growth in the short-term will come from manufacturers seeking to meet the sustained demand for power generation equipment, according to Frost & Sullivan Limited. In the longer term, Frost & Sullivan Limited believes that retrofit sales will become an increasingly important factor, which will foster economiser sales after 2012. The market size of extended surface economisers in China is expected to grow at a CAGR of 19.3% from 2008 to 2012, in revenue terms. The Rest of Asia, which is the second largest market for extended surface economisers, is expected to grow by 11.8% from 2008 to 2012. The long-term prospects are also good, with India's 12th five year plan expected to result in significant orders from 2012 onwards. Prospects for the European market in the short-term have worsened, largely because of the financial crisis, but the market will recover strongly post-2012.

The following table sets forth, for the periods indicated, historical and forecasted market size of the worlds largest extended surface and plain steel economiser markets by region.

								For the	year e	suded De	cembe	r 31, 2008	~							08-13	7	% of tot	al in
TonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonnesSMnTonseSMnTonnesSMnTonne		200	4	200	15	200	90	200	7	200	8	200	6	201(201	1	201	2	CAGR	%	2005	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Tonnes	\$Mn	Tonnes	\$Mn	Tonnes	\$Mn	Tonnes	\$Mn	Tonnes	\$Mn	Tonnes	\$Mn	Tonnes	\$Mn	Tonnes	\$Mn	Tonnes	\$Mn	Tonnes	\$Mn	[onnes	\$Mn
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $																							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		11,379	28	14,941	39	18,676	51	22,000	99	22,440	71	22,440	64	28,050	86	33,099	110	39,719	145	15.3%	19.3%	46.8%	42.0%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		5,547	13	7,212	17	9,375	24	15,000	42	16,200	48	15,390	40	16,929	47	18,960	56	23,701	75	10.0%	11.8%	33.8%	28.3%
$3,933$ 12 $4,247$ 15 $4,587$ 18 $5,000$ 23 $5,100$ 24 $4,535$ 12 $6,281$ 31 5.36 11 5.36 11 5.36 11 5.36 11 5.363 21 $6,281$ 31 5.36 11 5.363 21 $6,281$ 31 5.36 11 5.364 68 $47,170$ 87 $50,000$ 100 $53,000$ 111 $50,880$ 94 $55,568$ 108 $75,361$ 28 40 89 42 12 6.281 21 116 23 $24,00$ 10 $53,000$ 111 $50,880$ 94 $55,366$ 142 46 89 43 $71,97$ 120 10 $100,400$ 11 $50,881$ 21 $32,611$ 71 33 $21,98$ 120 100 100 $200,160$ 100 230 $100,130$:	3,146	14	3,367	17	3,670	19	4,000	24	4,200	27	3,906	22	4,101	24	4,716	29	5,660	37	7.7%	8.7%	8.8%	15.7%
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$:	3,933	12	4,247	15	4,587	18	5,000	23	5,100	24	4,335	18	4,552	20	5,235	24	6,281	31	5.3%	7.1%	10.6%	14.0%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$:	24,006	67	29,766	88	36,308	112	46,000	155	47,940	170	46,071	144	53,632	176	62,010	218	75,361	288	12.0%	14.1%	100%	100%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		34 000	50	38 664	89	47 170	87	20.000	100	53 000	11	50,880	04	55 968	108	58 766	101	63 468	147	4 60%	6 40%	40 40	41 70%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$:	25,437		102,00	27	30.403	6	34,000	215	35 700	62	33 015	11	35.611		38.460	80	43 075	100	4 80%	7 10%	33 30%	30.80%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$:	7 0 C C	Èĉ	0 417	t ĉ	0110	1 6	10,000	0	10 400		01000		0.017		0 160	70	010,01	5	20 D D	1 207	20100	0.0.0C
6,178 15 $6,796$ 18 $7,407$ 22 $8,000$ 28 $8,160$ 29 $6,773$ 21 $6,908$ 22 $7,392$ 25 $8,131$ 30 $-0.1%$ $0.7%$ 7 $1.$ 243 203 $102,000$ 243 $107,260$ 266 $100,408$ 217 $114,805$ 271 $124,804$ 323 $39%$ $5.0%$ 10 $1.$ $98,471$ 212 $111,364$ 256 $102,000$ 398 $155,200$ 436 $166,479$ 361 $114,805$ 211 $124,804$ 323 $319%$ $5.0%$ 10 $1.$ $98,471$ 212 $111,364$ 256 $105,406$ 361 $16,479$ 361 $161,136$ $114,800$ 323 $319%$ $50%$ 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	:	1,800	7	0,417	07	9,1/4	70	10,000	40	10,400	‡	0,040	70	9,017	CC	9,409	00	061,01	4	-0.1%	-1.2%	9.1%	0%C.01
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$:	6,178	15	6,796	18	7,407	22	8,000	28	8,160	29	6,773	21	6,908	22	7,392	25	8,131	30	-0.1%	0.7%	7.6%	10.9%
$\underline{98,471}$ $\underline{212}$ $\underline{111,364}$ $\underline{256}$ $\underline{315}$ $\underline{148,000}$ $\underline{398}$ $\underline{155,200}$ $\underline{436}$ $\underline{456}$ $\underline{489}$ $\underline{200,165}$ $\underline{611}$ $\underline{66\%}$ $\underline{8.8\%}$ /an Limited. the to rounding Africa and South America, which amounts Frost & Sullivan Limited considered to be insignificant. $\underline{616, 136}$ $\underline{415}$ $\underline{415}$ $\underline{489}$ $\underline{200,165}$ $\underline{611}$ $\underline{66\%}$ $\underline{8.8\%}$:	74,466	145	81,598	168	94,244	203	102,000	243	107,260	266	100,408	217	107,504	239	114,805	271	124,804	323	3.9%	5.0%	100%	100%
van Limited. s for certain regions, including Africa and South America, which amounts Frost & Sullivan Limited considered to be insignificant. I up to total due to rounding	:	98,471	212	111,364	256	130,552	315	148,000	398	155,200	436	146,479	361	161,136	415	176,815	489	200,165	611	6.6%	8.8%		
	ivan] ts for d up	Limited. certain reg to total due	gions, ir e to rou	ıcluding A nding	vfrica an	d South A	merica,	which an	lounts	Frost & S	Sullivan	Limited	conside	ered to be	insign	ificant.							

THIS INFORMATION PACK IS IN DRAFT FORM. The information contained in it is incomplete and is subject to change. This Information Pack must be read in conjunction with the section headed "Warning" on the cover of this Information Pack.

INDUSTRY OVERVIEW

GLOBAL WASTE HEAT BOILER MARKET-HRSG SEGMENT

Waste heat boilers extract thermal energy contained in the waste gases emitted from various industrial utilizations, and utilize the recovered thermal energy in another process of further utilizations. An HRSG is a type of waste heat recovery system designed to utilize exhaust heat emitted from gas turbines through steam conversion. Frost & Sullivan Limited categorizes the HRSGs market, based on power output, into large HRSGs, i.e. 50MW or greater, and small to medium HRSGs, i.e. 3MW to 50MW.

The global demand for HRSGs is driven by the demand for new gas-fired power generation plants, which is in turn driven by the generally lower capital cost and shorter construction time for gas-fired plants as compared to coal-fired power plants, according to Frost & Sullivan Limited. In addition, the fuel cost efficiency benefits generally associated with the use of HRSG with gas turbines is also one of the factors that have contributed to the growth of the HRSG market. Large HRSGs are flexible and can be used as both base load and peak load generating capacity, while small gas-fired plants play a critical role in providing peak load generating capacity and provide back-up support to intermittent fuel sources, particularly wind turbines.

The global market size for large sized HRSGs was estimated to be US\$5,890 million in 2008, and is expected to grow at 4.9% CAGR from 2008 to 2012, according to Frost & Sullivan Limited. Europe's heavy reliance on gas-fired generation is the primary reason why it was the largest market in 2008, accounting for 31.8% of global revenues.

In 2008, the total market size for small-to-medium sized HRSGs was US\$642 million, and is expected to grow by a CAGR of 5.8% from 2008 to 2012, reaching US\$806 million in 2012. In terms of revenue generated, Europe and North America shared the position of being the largest markets in 2008, with a global market share of 33.4% each.

The main driver for Europe's dominant share in both large and small to medium sized HRSGs is the need to replace aging installed capacity. The Large Combustion Plant Directive passed in 2001 by the European Union required heavily polluting coal-fired plants to either fit pollution control equipment or cease operation. Plants were allowed to run for no more than 20,000 operating hours from 2008, or alternatively, to close by 2016, whichever comes first. The peak of plant closures is expected in 2011 to 2012, according to Frost & Sullivan Limited, and as a result, new capacity will be required to replace the majority of these plants, with a mix of coal and gas plants to be constructed. Although Russia is not covered by European Union legislation, the Russian government has implemented a large investment program in power generation equipment that will initially focus on gas, but will later include substantial funds for new coal-fired plants. Despite the financial crisis, Frost & Sullivan Limited is aware that the Russian government is maintaining pressure on utilities that have committed to invest to fulfill their obligations.

China is expected to be the fastest growing market in revenues generated for large HRSGs, with an estimated CAGR of 14.3%, from 2008 to 2012. The Chinese government is promoting the usage of natural gas because it is a cleaner fuel relative to coal. Under the 11th Five Year Plan, gas-fired installed capacity is expected to account for 8.3% of the incremental installed capacity in China, according to the 'Power Industry 11th Five Year Plan and 2020 Development Plan". In order to encourage natural gas usage, the PRC government and key Chinese oil and gas upstream participants have made significant investments in the construction of gas pipelines that bring natural gas from the gas-rich provinces to the regions of the country where natural gas consumption is high. An example of such a gas transportation infrastructure is the West-to-East gas pipeline, which was completed in 2004, and transports 12 billion cubic meters of natural gas from Xinjiang to Shanghai annually. Since CCGT plants use HRSGs, demand for HRSGs is expected to increase as a result. A growing preference from industrial users to have their own power plants will drive the demand for HRSGs from industries such as refineries, petrochemical units and the fertilizer industry.

Based on tonnage in 2008, Doosan Heavy Industries was the market leader with 23.1% of the market, ahead of Nooter Eriksen with 17.8% market share. This is followed by manufacturers such as Vogt, BHEL and Bumwoo, with 8.2%, 7.6% and 4.0% of the market respectively. These players tend to be strong in particular regions. NEM and Alstom held 8% 7.6% of the market, and both compete in most markets. Other notable players include Hangzhou, STF, Zio Podolsk and CMI.

													0.	51											
% of total	in 2008	Unit \$Mn	<u> </u>	23.8% 26.6%	20.4% 18.8%	19.0% 18.1%	6.8% 4.6%	$\frac{100\%}{100\%}$ $\frac{100\%}{100\%}$		34.5% 33.4%	29.9% 33.4%	13.8% 13.4%	11.5% 13.7%	10.3% 6.2%	$\frac{100\%}{100\%} \frac{100\%}{100\%}$			n.	2008	¹ nits \$'000	0.3% 62.8%	38.5% 22.6%	11.2% 14.7%	$\frac{100\%}{100\%} \frac{100\%}{100\%}$	
08.12	CAGR %	Unit \$Mn	3706 3.006	65% 63%	0.7 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5.0% 5.5%	12.5% 14.3%	4.9% 4.9%		1.6% 1.1%	3.6% 3.1%	10.7% 11.9%	8.8% 8.8%	17.2% 19.7%	6.3% 5.8%			ers by regio	CAGR %	nits \$'000 U	1.0% -6.0% €	6.9% -10.8% 2	1.6% 0.7% 1	1.0% -5.9%	cant.
	2012	Jnit \$Mn	50 2110	45 1 999	33 1 229	34 1.321	16 465	178 7,123		32 225	30 243	18 135	14 123	17 81	111 806			narine boil	2012	s \$2000	81,788	23,785 -	25,092	130,666 -	o be insignifi
	2011	nit \$Mn U	355 1 355	30 1 222	277, 065	23 835	14 370	30 4,748		24 150	20 145	15 104	12 96	14 62	85 557			arkets for 1	11	\$'000 Unit	69,683 176	20,518 60	15,914 33	106,115 269	ed considered t
	2010	t \$Mn U	041	1 333	716	192	296	4,046		3 103	66 9	69	6 45	(357		insignificant.	's largest n	20	000 Units	,182 158	,620 54	,101 25	,903 237	ullivan Limite
, 2008	000	\$Mn Uni	70K 36	957 35	650 22	604 22	168 12	3,171 117		88 18	95 15	50 11	37 6	23 10	294 60		sidered to be j	f the world	2010	00 Units \$'	77 126 49	76 39 12	75 15 8	27 180 69	ints Frost & S
December 31,	8 2(\$Mn Unit	1 873 77	1568 25	1 109 20	1.068 18	273 7	5,890 92	n 	215 15	215 14	86 8	88 5	40 6	642 48		Limited con	rket size of nber 31,	2009	Units \$'00	92 34,7'	32 10,17	8 4,9′	132 49,90	, which amou
year ended I	200	An Unit	74 44 77	00 35	801 30	15 28	325 10)55 147 <u>5</u>		<u>9</u> 3 30	240 26	72 12	80 10	52 9	36 87		st & Sullivan	ecasted ma	2008	nits \$'000	69 104,647	80 37,634	31 24,440	80 166,720	outh America
For the	2007	Unit \$N	3 48 15		2 C T C	1 20 1.(+ 13	5 167 6,0		1 45	3 32 2	2 11	3 10	l 13	11		amounts Frc	al and for: For the year	007	\$'000	155,647 1	32,807	38,800	227,254 2	le East and So
	2006	Unit \$Mr	37 1 76	00211 00	22 22	16 52	11 25	109 3,47		42 23	26 17	12 7.	8	12 4	100 57		merica, which	ed, historic		000 Units	8,143 305	3,930 90	1,440 47	3,512 442	ica, the Midd
	2005	Jnit \$Mn	3.7 QKK	34 1 077	24 612	23 707	13 275	126 3,639		39 196	20 117	21 126	25 158	10 33	115 631		and South A	ods indicat	2006	Duits \$	50 279 14	75 2	52 45 3	0 399 20	America, Afr
	2004	uit \$Mn I	0 580	5 760	3 518	1 321	8 731	7 2,911		8 166	2 125	6 91	5 91	9 28	0 501		luding Africa ing	or the peri-	2005	Units \$'00(337 150,15	56 18,87	41 23,00	434 192,09	uding North . ing
		<u>5</u>	C						II		2	1	1	· · ·	10		ed. in regions, incl al due to round	sets forth, f	2004	its \$'000	9 130,769	42 11,417	36 21,931	87 164,117	ed. in regions, incl il due to round
sized HKSUs by region.			50MW+ Furone & the CIS	Middle Fast	North America	Rest of Asia	China	Total	3MW-50MW	North America	Europe & the CIS	Rest of Asia	Middle East	China	Total		Source: Frost & Sullivan Limite (1) Exclude amounts for certai Numbers may not add up to tots	The following table	1	Un	Rest of Asia 30	China 4	Europe & the CIS	Total ⁽¹⁾ \dots $3E$	Source: Frost & Sullivan Limite (1) Exclude amounts for certai Numbers may not add up to tote

INDUSTRY OVERVIEW

GLOBAL MARINE BOILER MARKET

According to Frost & Sullivan Limited, the global demand for marine boilers was 280 units or \$167 million in 2008. Markets revenues are forecast to contract at a CAGR of 5.9% from 2008 to 2012. This decline is caused by a combination of factors, including declining demand for oil and chemical tankers, cruise ships and bulk carriers, the stagnation in the shipbuilding industry, as well as the slow-down in offshore oil and gas activity, and gas turbine propulsion for LNG and cruise ships. However, a recovery is forecast to start in 2010 and gain pace in 2011 and 2012.

The Rest of Asia is the largest market for marine boilers and is expected to continue to grow over the whole forecast period, with unit sales increasing at a CAGR of 1% from 2008 to 2012, although revenues will fall 6% in the same period. The market was badly affected between 2007 and 2008, with orders falling by 45% in that one year. China saw less of a slow-down in 2008, but will be much more affected in 2009, with unit orders falling 60% in one year. Overall unit orders are expected to decline at a CAGR of 6.9% and revenues are expected to fall at a CAGR of 10.8%, but the market will recover post-2012 as it is highly likely that China will become a challenger to Koreans dominance in shipbuilding. The European market is expected to grow at a CAGR of 0.9% in units and a CAGR of 0.7% in revenues between 2008 and 2012, but will remain a relatively niche player, accounting only 12% of global sales. The only other region where shipbuilding could realistically have been expected is North America, but in the course of the research Frost & Sullivan Limited found that production of tankers, cruise liners and bulk carriers there had ceased, so no forecasts can be made.

According to Frost & Sullivan Limited and based on units on 2008, the global market was dominated by Aalborg with 41.7% of the market, followed by Mitsubishi Heavy Industries with 19.1% of the market and Kangrim Heavy Industries with 9.2% market share. Other notable players include Osaka, Saacke, and Kawasaki. Greens is also one of the main tier 2 manufacturers, with a particular strength in China.

ENVIRONMENTAL POLICIES AND REGULATIONS

Although there is currently no global legislation that would require utility operators to fit economisers, HRSGs and other energy-saving heat transfer technologies, action is taken at a regional level, for example the European Union, or at a state level, for example the Chinese government. For example, The European Union's Large Combustion Plant Directive, which has required environmental pollution control equipment to be fitted, has also increased demand for economisers and other boiler components, which can be fitted while the plant is offline. According to Frost & Sullivan Limited, planning legislation has been used in a number of countries and regions to require utilities to fit efficient CCGT plants, rather than simply cycle gas turbines. The Chinese government included CCGT plant (and in effect HRSGs) as one of the encouraged industries for development. Japan introduced stringent emissions control regulations in the mid 1990s, according to Frost & Sullivan Limited and increased demand for efficiency upgrades. All of these examples, combined with the energy efficiency factor and fuels costs, have contributed to strong demand for the energy-saving heat transfer technologies.

In China, the PRC government has adopted a number of policies to promote the development of energy conservation and emission reduction, which significantly benefits the waste heat power generation industry and the boiler and relevant component manufacturing industries. The 11th Five-Year Planning Outline on National Economic and Social Development of the PRC, or the Planning Outline, sets a significant improvement in efficiency of resource utilization as one of the primary goals of the economic and social development, aiming at reducing the energy consumption per unit of GDP by approximately 20% during this period. In particular, according to the Planning Outline, which highlights the adoption of energy conservation and environmental protection as the fundamental national policy, the advancement of inefficient coal-fueled industrial boilers and the use of waste heat and pressure are classified as two of the ten key projects for energy conservation. In addition, the PRC government has promulgated a series of laws and regulations to support the manufacturing of energy conservation equipment and the comprehensive utilization of resources: the Law of the PRC on Promoting Clean Production, the Law of the PRC on Energy Conservation, the Law of the PRC on Promoting Clicular Economy, Guiding Opinions on Comprehensive Utilization of Resources in the 11th Five-Year Period and the Comprehensive Working Plan on Energy Conservation and Emission Reduction. These laws and

INDUSTRY OVERVIEW

regulations provide a variety of incentive measures, such as specific funds provided by the central and provincial financial authorities, tax preferential treatments, banking and financing support, capital investment and favorable pricing policies, to encourage energy conservation equipment production and utilization as well as the waste heat power generation. See "Regulation".

In May 2009, planning has already begun for the development of a new 12th Fifth Year Environmental Protection Plan. China's Ministry of Environmental Protection (MEP) is already soliciting participation in research projects covering new topics that will be at the core of China's environmental policy in 2011-2015. Some important topics include:

- Research on nitrogen-oxide pollution prevention, treatment approaches and total control methods; and
- Research on joint prevention and treatment programmes for regional air pollution and air quality management mechanisms

ABOUT THIS SECTION

General

This "Industry Overview" section quotes and otherwise includes information from a commissioned report, or the F&S Report, prepared by Frost & Sullivan Limited for purposes of this document. For the full report, see Appendix V to this document, "Independent Industry Report on the Global Boiler Industry". We have not commissioned any report for purposes of this document other than the F&S Report. We believe that the sources of the information included in this "Industry Overview" section are appropriate sources for such information, and we have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. The information has not been independently verified by us.

The following sets forth certain information about Frost & Sullivan Limited, the F&S Report and our other key sources used to prepare this "Industry Overview" section.

• *Frost & Sullivan Limited and the F&S Report.* Frost & Sullivan Limited is an independent industry consultant founded in 1961 which has over 35 global offices and employs over 1,800 analysts and experts worldwide. The firm covers a number of industries, including aerospace, defense, automotive, transportation, chemicals, energy and power systems, environmental technologies, electronics, information and communication technologies and healthcare. The Growth Consulting division of Frost & Sullivan Limited is focused on providing clients with customized consulting solutions to support their business needs, such as market analysis and acquisition target analysis.

We commissioned Frost & Sullivan Limited's Growth Consulting division to provide an independent assessment of the opportunities, dynamics and competitive landscape of the boiler equipment and power generation markets. We paid a total of €367,400 to Frost & Sullivan Limited for an initial final report, and an additional €50,000 for a second final report updated to contain full-year 2008 statistics.

- *BP Statistical Review of World Energy*. BP Statistical Review of World Energy is an annual industry report that provides objective quantitative data on world energy markets. The report has been published for over 50 years and is based on statistics taken from the government, primary sources as well as published data. BP plc, one of the world's largest oil and gas companies, issues the report annually. The source data is based on contributions from a number of independent organizations including OECD, Platts, World Energy Council, EIA and the Oil and Gas journal.
- *EIA*. The Energy Information Administration, or EIA, is an independent statistical agency within the United States Department of Energy.
- *China Electric Power Yearbook.* China Electric Power Yearbook is an annual publication produced under the guidance of the PRC State Electricity Regulatory Commission and the China Enterprise Confederation. In addition, this book is edited jointly by the State Grid Corporation of China, the China

INDUSTRY OVERVIEW

Southern Power Grid Co., Ltd., China Huaneng Group, the China Datang Corp., the China Huadian Group Corp., the China Guodian Group Corp. and the China Power Investment Corp.

Research Background of the F&S Report

Consistent with Frost & Sullivan Limited's methodology in preparing other research reports similar to the F&S Report, in preparing the F&S Report, Frost & Sullivan Limited initially formulated a research hypothesis, then conducted surveys and obtained relevant data from its network of industry contacts. The information was then analyzed and consolidated for its final report.

Frost & Sullivan Limited is a research consultancy with over 45 years experience in the power generation sector. Frost & Sullivan Limited's research methodology is based on interviews with key industry participants—knowledgeable industry figures such as marketing managers, product managers, sales managers and other company executives. Over the course of its research, Frost & Sullivan Limited interviewed over 150 people globally to determine the size of the market and how they see the market developing in the future. Frost & Sullivan Limited also relied on its internal knowledge built up through working with a number of the world's leading power supply and equipment manufacturers. The focus of Frost & Sullivan Limited's research and interviews was principally toward the utility boiler market. The research covers both the new build and retrofit markets for economisers, but Frost & Sullivan Limited accept that the retrofit market potential for industrial boilers may be greater than forecast in this research. For that market to be fully determined, a specific piece of research would need to be commissioned with the interviews focused toward developers, repair companies and site maintenance companies, in order to get a comprehensive picture.