

ALCOA INC
Form 10-K
February 16, 2012
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934
For The Fiscal Year Ended December 31, 2011

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number 1-3610

ALCOA INC.

(Exact name of registrant as specified in its charter)

Pennsylvania
(State of incorporation)

25-0317820
(I.R.S. Employer Identification No.)

390 Park Avenue, New York, New York 10022-4608

(Address of principal executive offices) (Zip code)

Registrant's telephone numbers:

Investor Relations----- (212) 836-2674

Office of the Secretary----- (212) 836-2732

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, par value \$1.00	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No .

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Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes No .

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months, and (2) has been subject to such filing requirements for the past 90 days. Yes No .

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months. Yes No .

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No .

The aggregate market value of the outstanding common stock, other than shares held by persons who may be deemed affiliates of the registrant, as of the last business day of the registrant's most recently completed second fiscal quarter was approximately \$17 billion. As of February 10, 2012, there were 1,066,107,670 shares of common stock, par value \$1.00 per share, of the registrant outstanding.

Documents incorporated by reference.

Part III of this Form 10-K incorporates by reference certain information from the registrant's definitive Proxy Statement for its 2012 Annual Meeting of Shareholders to be filed pursuant to Regulation 14A (Proxy Statement).

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In this Form 10-K, selected items of information and data are incorporated by reference to portions of the Proxy Statement. Unless otherwise provided herein, any reference in this report to disclosures in the Proxy Statement shall constitute incorporation by reference of only that specific disclosure into this Form 10-K.

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PART I

Item 1. Business.

General

Formed in 1888, Alcoa Inc. is a Pennsylvania corporation with its principal office in New York, New York. In this report, unless the context otherwise requires, Alcoa or the company means Alcoa Inc. and all subsidiaries consolidated for the purposes of its financial statements.

The company's Internet address is <http://www.alcoa.com>. Alcoa makes available free of charge on or through its website its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after the company electronically files such material with, or furnishes it to, the Securities and Exchange Commission (SEC). The SEC maintains an Internet site that contains these reports at <http://www.sec.gov>.

Forward-Looking Statements

This report contains (and oral communications made by Alcoa may contain) statements that relate to future events and expectations and, as such, constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as anticipates, believes, estimates, expects, forecast, hopes, outlook, projects, should, likely result, or other words of similar meaning. All statements that reflect Alcoa's expectations, assumptions or projections about the future other than statements of historical fact are forward-looking statements, including, without limitation, forecasts concerning aluminum industry growth or other trend projections, anticipated financial results or operating performance, and statements about Alcoa's strategies, objectives, goals, targets, outlook, and business and financial prospects. Forward-looking statements are subject to a number of known and unknown risks, uncertainties and other factors and are not guarantees of future performance. Actual results, performance or outcomes may differ materially from those expressed in or implied by those forward-looking statements. For a discussion of some of the specific factors that may cause Alcoa's actual results to differ materially from those projected in any forward-looking statements, see the following sections of this report: Part I, Item 1A. (Risk Factors), Part II, Item 7. (Management's Discussion and Analysis of Financial Condition and Results of Operations), including the disclosures under Segment Information and Critical Accounting Policies and Estimates, and Note N and the Derivatives Section of Note X to the Consolidated Financial Statements in Part II, Item 8. (Financial Statements and Supplementary Data). Alcoa disclaims any intention or obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law.

Overview

Alcoa is the world leader in the production and management of primary aluminum, fabricated aluminum, and alumina combined, through its active and growing participation in all major aspects of the industry: technology, mining, refining, smelting, fabricating, and recycling. Aluminum is a commodity that is traded on the London Metal Exchange (LME) and priced daily based on market supply and demand. Aluminum and alumina represent more than 80% of Alcoa's revenues, and the price of aluminum influences the operating results of Alcoa. Nonaluminum products include precision castings and aerospace and industrial fasteners. Alcoa's products are used worldwide in aircraft, automobiles, commercial transportation, packaging, building and construction, oil and gas, defense, consumer electronics, and industrial applications.

Alcoa is a global company operating in 31 countries. Based upon the country where the point of sale occurred, the U.S. and Europe generated 49% and 27%, respectively, of Alcoa's sales in 2011. In addition, Alcoa has investments and operating activities in, among others, Australia, Brazil, China, Guinea, Iceland, Russia, and Saudi Arabia, all of which

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present opportunities for substantial growth. Governmental policies, laws and regulations, and other economic factors, including inflation and fluctuations in foreign currency exchange rates and interest rates, affect the results of operations in these countries.

Alcoa's operations consist of four worldwide reportable segments: Alumina, Primary Metals, Flat-Rolled Products, and Engineered Products and Solutions.

Description of the Business

Information describing Alcoa's businesses can be found on the indicated pages of this report:

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Discussion of Recent Business Developments:	
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The following charts and related discussion of the company's Bauxite Interests, Alumina Refining and Primary Aluminum Facilities and Capacities, Flat-Rolled Products, Engineered Products and Solutions and Corporate Facilities provide additional description of Alcoa's businesses. The Alumina segment primarily consists of a series of affiliated operating entities referred to as Alcoa World Alumina and Chemicals (AWAC). Alcoa owns 60% and Alumina Limited owns 40% of these individual entities. For more information on AWAC, see Exhibit Nos. 10(a) through 10(f)(1) to this report.	

Table of Contents**Bauxite Interests**

Aluminum is one of the most plentiful elements in the earth's crust. Aluminum is produced primarily from bauxite, an ore containing aluminum in the form of aluminum oxide, commonly referred to as alumina. Aluminum is made by extracting alumina from bauxite and then removing oxygen from the alumina. Alcoa processes most of the bauxite that it mines into alumina. The company obtains bauxite from its own resources and from those belonging to the AWAC enterprise, located in the countries listed in the chart below, as well as pursuant to both long-term and short-term contracts and mining leases. In 2011, Alcoa consumed 43.0 million metric tons (mt) of bauxite from AWAC and its own resources, 6.4 million mt from related third parties and 1.1 million mt from unrelated third parties. Alcoa's present sources of bauxite are sufficient to meet the forecasted requirements of its alumina refining operations for the foreseeable future. The following table provides information regarding the company's bauxite interests:

Alcoa Active Bauxite Interests¹

Country	Project	Owners	Mining Rights (% Entitlement)	Expiration Date of Mining Rights
Australia	Darling Range Mines	Alcoa of Australia Limited (AofA) ²	(100%)	2045
Brazil	Poços de Caldas	Alcoa Alumínio S.A. (Alumínio) ³	(100%)	2020 ⁴
	Trombetas	Mineração Rio do Norte S.A. (MRN) ⁵	(100%)	2046 ⁴
	Juruti ⁶	Alcoa World Alumina Brasil Ltda. (AWA Brasil) ²	(100%)	2100 ⁴
Guinea	Boké	Compagnie des Bauxites de Guinée (CBG) ⁷	(100%)	2038 ⁸
Jamaica	Clarendon/Manchester	Alcoa Minerals of Jamaica, L.L.C. ²	(55%)	
	Plateau	Clarendon Alumina Production Ltd. ⁹	(45%)	2042
Suriname	Caramacca	Suriname Aluminum Company, L.L.C. (Suralco) ²	(55%)	
	Coermotibo	N.V. Alcoa Minerals of Suriname (AMS) ¹⁰	(45%)	2012 ¹¹
		Suralco	(55%)	
	Kaimangrasi	AMS ¹⁰	(45%)	2033 ¹¹
		Suralco	(55%)	
	Klaverblad	AMS ¹⁰	(45%)	2033 ¹¹
		Suralco	(55%)	
		AMS ¹⁰	(45%)	2033 ¹¹

¹ Alcoa also has interests at the following locations that are bauxite resources which do not currently produce bauxite: Cape Bougainville and Mitchell Plateau in Australia; Az Zabirah in the Kingdom of Saudi Arabia (currently scheduled for completion in 2014 and initially expected to produce 4 million mtpy); and Brownsberg, Coermotibo DS, Lely Mountains, and Nassau, all in eastern Suriname.

² This entity is part of the AWAC group of companies and is owned 60% by Alcoa and 40% by Alumina Limited.

³ Alumínio is owned 100% by Alcoa.

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- ⁴ Brazilian mineral legislation does not establish the duration of mining concessions. The concession remains in force until the exhaustion of the deposit. The company estimates that (i) the concessions at Poços de Caldas will last at least until 2020, (ii) the concessions at Trombetas will last until 2046 and (iii) the concessions at Juruti will last until 2100. Depending, however, on actual and future needs, the rate at which the deposits are explored and government approval is obtained, the concessions may be extended to (or expire at) a later (or an earlier) date.
- ⁵ Alumínio holds an 8.58% total interest, Alcoa World Alumina Brasil Ltda. (formerly Abalco S.A., which merged with Alcoa World Alumina Brasil Ltda. in December 2008) (AWA Brasil) holds a 4.62% total interest and Alcoa World Alumina LLC (AWA LLC) holds a 5% total interest in MRN. AWA Brasil and AWA LLC are both part of the AWAC group of companies and are owned 60% by Alcoa and 40% by Alumina Limited. MRN is jointly owned with affiliates of Rio Tinto Alcan Inc., Companhia Brasileira de Alumínio, Companhia Vale do Rio Doce, BHP Billiton Plc (BHP

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- Billiton) and Norsk Hydro. Alumínio, AWA Brasil, and AWA LLC purchase bauxite from MRN under long-term supply contracts.
- ⁶ In September 2009, development of a new bauxite mine was completed in Juruti, state of Para in northern Brazil. The mine is fully operational and produced 2.6 million mt in 2010 and 3.8 million mt in 2011. In 2012 production is expected to rise to 4.4 million mt.
- ⁷ AWA LLC owns a 45% interest in Halco (Mining), Inc. Halco owns 100% of Boké Investment Company, a Delaware company, which owns 51% of CBG. The Guinean Government owns 49% of CBG, which has the exclusive right through 2038 to develop and mine bauxite in certain areas within a 10,000 square-mile concession in northwestern Guinea.
- ⁸ AWA LLC has a bauxite purchase contract with CBG that will provide Alcoa with bauxite through 2013.
- ⁹ Clarendon Alumina Production Ltd. is wholly-owned by the Government of Jamaica.
- ¹⁰ AWA LLC owns 100% of N.V. Alcoa Minerals of Suriname (AMS). AWA LLC is part of the AWAC group of companies and is owned 60% by Alcoa and 40% by Alumina Limited.
- ¹¹ Subject to Suriname government approval of a pending five-year extension request, mining rights at Caramacca will expire this operating year 2012. Rights at the remaining Suriname locations all extend until 2033. It is likely that all Suriname current bauxite resources will be exhausted within the next several years. Alcoa is actively exploring and evaluating alternative sources of bauxite in Suriname. Approximately 1.6 million mt of bauxite was added to the reserves in 2011 from greenfield exploration in the current concession, and the development of the Nassau Plateau bauxite is entering its final phase.

Kingdom of Saudi Arabia Joint Venture

In December 2009, Alcoa and Saudi Arabian Mining Company (Ma'aden) entered into an agreement setting forth the terms of a joint venture between them to develop a fully integrated aluminum complex in the Kingdom of Saudi Arabia. In its initial phases, the complex will include a bauxite mine with an initial capacity of 4 million mtpy; an alumina refinery with an initial capacity of 1.8 million mtpy; an aluminum smelter with an initial capacity of ingot, slab and billet of 740,000 mtpy; and a rolling mill with initial capacity of 380,000 mtpy. The mill is expected to focus initially on the production of sheet, end and tab stock for the manufacture of aluminum cans, and potentially other products to serve the construction, automotive, and other industries.

The refinery, smelter and rolling mill will be established within the new industrial zone of Ras Al Khair (formerly Ras Az Zawr) on the east coast of the Kingdom of Saudi Arabia. First production from the aluminum smelter and rolling mill is anticipated in 2013, and first production from the mine and refinery is expected in 2014.

Total capital investment is expected to be approximately \$10.8 billion (SAR 40.5 billion). Ma'aden owns a 74.9% interest in the joint venture. Alcoa owns a 25.1% interest in the smelter and rolling mill, with the AWAC group having a 25.1% interest in the mine and refinery. For additional information regarding the joint venture, see the Equity Investments section of Note I to the Consolidated Financial Statements in Part II, Item 8. (Financial Statements and Supplementary Data).

Table of Contents**Alumina Refining Facilities and Capacity**

Alcoa is the world's leading producer of alumina. Alcoa's alumina refining facilities and its worldwide alumina capacity are shown in the following table:

Alcoa Worldwide Alumina Refining Capacity

Country	Facility	Owners (% of Ownership)	Nameplate Capacity ¹ (000 MTPY)	Alcoa
				Consolidated Capacity ² (000 MTPY)
Australia	Kwinana	AofA ³ (100%)	2,190	2,190
	Pinjarra	AofA (100%)	4,234	4,234
	Wagerup	AofA (100%)	2,555	2,555
Brazil	Poços de Caldas	Alumínio ⁴ (100%)	390	390
	São Luís (Alumar)	AWA Brasil ³ (39%)		
		Rio Tinto Alcan Inc. ⁵ (10%)		
		Alumínio (15%)		
Jamaica	Jamalco	BHP Billiton ⁵ (36%)	3,500	1,890
		Alcoa Minerals of Jamaica, L.L.C. ³ (55%)		
Spain	San Ciprián	Clarendon Alumina Production Ltd. ⁶ (45%)	1,478	841
		Alúmina Española, S.A. ³ (100%)	1,500	1,500
Suriname	Suralco	Suralco ³ (55%)		
United States	Point Comfort, TX	AMS ⁷ (45%)	2,207 ⁸	2,207
		AWA LLC ³ (100%)	2,305 ⁹	2,305
TOTAL			20,359	18,112

¹ Nameplate Capacity is an estimate based on design capacity and normal operating efficiencies and does not necessarily represent maximum possible production.

² The figures in this column reflect Alcoa's share of production from these facilities. For facilities wholly-owned by AWAC entities, Alcoa takes 100% of the production.

³ This entity is part of the AWAC group of companies and is owned 60% by Alcoa and 40% by Alumina Limited.

⁴ This entity is owned 100% by Alcoa.

⁵ The named company or an affiliate holds this interest.

- ⁶ Clarendon Alumina Production Ltd. is wholly-owned by the Government of Jamaica.
- ⁷ AWA LLC owns 100% of N.V. Alcoa Minerals of Suriname (AMS). AWA LLC is part of the AWAC group of companies and is owned 60% by Alcoa and 40% by Alumina Limited.
- ⁸ In May 2009, the Suralco alumina refinery announced curtailment of 870,000 mtpy. The decision was made to protect the long-term viability of the industry in Suriname. The curtailment was aimed at deferring further bauxite extraction until additional in-country bauxite resources are developed and market conditions for alumina improve. The refinery currently has approximately 793,000 mtpy of idle capacity.
- ⁹ Reductions in production at Point Comfort resulted mostly from the effects of curtailments initiated in late 2008 through early 2009, as a result of overall market conditions. The reductions included curtailments of approximately 1,500,000 mtpy. Of that original amount, 384,000 mtpy remain curtailed.
- As noted above, Alcoa and Madaden entered into an agreement that involves the development of an alumina refinery in the Kingdom of Saudi Arabia. Initial capacity of the refinery is expected to be 1.8 million mtpy. First production is expected in 2014. For additional information regarding the joint venture, see the Equity Investments section of Note I to the Consolidated Financial Statements in Part II, Item 8. (Financial Statements and Supplementary Data).

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The 2.1 million mtpy expansion of the Alumar consortium alumina refinery in São Luís, Maranhão, completed by the end of 2009, has increased the refinery's nameplate capacity to approximately 3.5 million mtpy, with Alcoa's share of such capacity more than doubling to 1.89 million mtpy based on its 54% ownership stake through Alumínio and AWAC.

In November 2005, Alcoa World Alumina LLC (AWA LLC) and Rio Tinto Alcan Inc. signed a Basic Agreement with the Government of Guinea that sets forth the framework for development of a 1.5 million mtpy alumina refinery in Guinea. In 2006, the Basic Agreement was approved by the Guinean National Assembly and was promulgated into law. The Basic Agreement was originally set to expire in November 2008, but has been extended to November 2012. Pre-feasibility studies were completed in 2008. Additional feasibility study work was completed in 2011, and further activities are planned for 2012.

In September 2006, Alcoa received environmental approval from the Government of Western Australia for expansion of the Wagerup alumina refinery to a maximum capacity of 4.7 million mtpy, a potential increase of over 2 million mtpy. This approval has a term of 5 years and included environmental conditions that must be satisfied before Alcoa can seek construction approval for the project. The project was suspended in November 2008 due to global economic conditions and the unavailability of a secure long-term energy supply in Western Australia. These constraints continue and as such the project remains under suspension. Alcoa is therefore seeking an extension of the 2006 environmental approval for the expansion for a further 5 years, with a formal determination expected in spring of 2012.

In 2008, AWAC signed a cooperation agreement with Vietnam National Coal-Minerals Industries Group (Vinacomin) in which they agreed to conduct a joint feasibility study of the Gia Nghia bauxite mine and alumina refinery project located in Dak Nong Province in Vietnam's Central Highlands, with first stage capacity expected to be between 1.0 and 1.5 million mtpy. The cooperation between AWAC and Vinacomin on Gia Nghia is subject to approval by the Government of Vietnam. If established, the Gia Nghia venture is expected to be 51% owned by Vinacomin, 40% by AWAC and 9% by others.

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The company's primary aluminum smelters and their respective capacities are shown in the following table:

Alcoa Worldwide Smelting Capacity

Country	Facility	Owners (% Of Ownership)	Nameplate	Alcoa
			Capacity ¹ (000 MTPY)	Consolidated Capacity ² (000 MTPY)
Australia	Point Henry Portland	AofA (100%)	190	190 ³
		AofA (55%)		
		CITIC ⁴ (22.5%)		
Brazil	Poços de Caldas São Luís (Alumar)	Marubeni ⁴ (22.5%)	358	197 _{3,5}
		Alumínio (100%)	96	
		Alumínio (60%)		
Canada	Baie Comeau, Que. Bécancour, Que.	BHP Billiton ⁴ (40%)	447	268
		Alcoa (100%)	385	
		Alcoa (74.95%)		
Iceland	Deschambault, Que. Fjarðaál	Rio Tinto Alcan Inc. ⁶ (25.05%)	413	310
		Alcoa (100%)	260	
		Alcoa (100%)	344	
Italy	Fusina Portovesme	Alcoa (100%)	44 ⁷	44
		Alcoa (100%)	150 ⁷	
Norway	Lista Mosjøen	Alcoa (100%)	94	94
		Alcoa (100%)	188	
Spain	Avilés La Coruña	Alcoa (100%)	93 ⁸	93
		Alcoa (100%)	87 ⁸	
		Alcoa (100%)	228	
United States	Evansville, IN (Warrick) Massena East, NY Massena West, NY Mount Holly, SC	Alcoa (100%)	269	269
		Alcoa (100%)	125	
		Alcoa (100%)	130	
		Century Aluminum Company ⁴ (49.67%)	229	
		Alcoa (100%)	215 ⁹	
TOTAL	Rockdale, TX Ferndale, WA (Intalco) Wenatchee, WA	Alcoa (100%)	267 ¹⁰	267
		Alcoa (100%)	279 ¹¹	
		Alcoa (100%)	184 ¹²	
		Alcoa (100%)	5,075	
				4,518

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Nameplate Capacity is an estimate based on design capacity and normal operating efficiencies and does not necessarily represent maximum possible production.

- ² The figures in this column reflect Alcoa's share of production from these facilities.
- ³ Figures include the minority interest of Alumina Limited in facilities owned by AofA. From these facilities, Alcoa takes 100% of the production allocated to AofA.
- ⁴ The named company or an affiliate holds this interest.

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⁵ In December 2008, approximately 15,000 mtpy annualized production was idled at the Portland facility due to overall market conditions. In July 2009, an additional 15,000 mtpy annualized production was idled, again, due to overall market conditions. This production remains idled.

⁶ Owned through Rio Tinto Alcan Inc.'s interest in Pechiney Reynolds Québec, Inc., which is owned by Rio Tinto Alcan Inc. and Alcoa.

⁷ In May 2010, Alcoa and the Italian Government agreed to a temporary curtailment of the Fusina smelter. As of June 30, 2010, the Fusina smelter was fully curtailed. Additionally, in January 2012, as part of a restructuring of Alcoa's global smelting system, Alcoa announced that it has decided to curtail operations at the Portovesme smelter during the first half of 2012. This action may lead to the permanent closure of the Portovesme smelter.

⁸ In January 2012, Alcoa announced that it will be temporarily idling a portion of the smelters in Avilés and La Coruña. The company intends for this to be completed within the first half of 2012. Avilés and La Coruna will both be operating at approximately 50% of capacity.

⁹ All production at the Tennessee smelter was idled in March 2009 due to economic conditions. In January 2012, Alcoa announced that it will permanently shut down and demolish this facility as part of a larger strategy to improve its cost position and competitiveness.

¹⁰ Between June and November 2008, three of Rockdale's six potlines were idled as a result of uneconomical power prices. The remaining three operating lines were idled in November 2008 due to uncompetitive power supply and overall market conditions. In January 2012, Alcoa announced that it will permanently shut down and demolish two of the six idled potlines as part of a larger strategy to improve its cost position and competitiveness.

¹¹ Approximately half of one potline at the Intalco smelter remains idled, or approximately 47,000 mtpy.

¹² One potline at the Wenatchee smelter remains idled, or approximately 41,000 mtpy. As of December 31, 2011, Alcoa had approximately 644,000 mtpy of idle capacity against total Alcoa Consolidated Capacity of 4,518,000 mtpy. These figures are prior to any changes noted above regarding Rockdale, Tennessee, Avilés, Portovesme and La Coruña.

In January 2011, Alcoa and the China Power Investment Corporation (CPI) signed a Memorandum of Understanding (MOU) to collaborate on a broad range of aluminum and energy projects in China and other locations. The projects under consideration may range from mining, refining, smelting, aluminum fabrication to collaboration on energy projects. In September 2011, Alcoa and CPI signed a Letter of Intent that provides a framework for the creation of a joint venture, which will focus on producing high-end fabricated aluminum products in China and leverage Alcoa's and CPI's existing footprint and capabilities. The new joint venture will target growth opportunities in the Chinese automotive, aerospace, packaging and consumer electronics markets.

As noted above, at the end of 2009 Alcoa and Ma'aden entered into an agreement that involves development of an aluminum smelter in the Kingdom of Saudi Arabia. In 2010, the joint venture entity, Ma'aden Aluminium Company signed project financing and broke ground on the construction of the smelter. The smelter is expected to have an initial capacity of ingot, slab and billet of 740,000 mtpy. First production is expected in 2013.

In 2006, Alcoa and the Government of Iceland, together with the National Power Company (Landsvirkjun) and the National Transmission Company (Landsnet) began detailed feasibility studies for the development of a 250,000 mtpy aluminum smelter at Bakki near Húsavík in north Iceland. In October 2011, Alcoa informed the Government of Iceland, Landsvirkjun and Landsnet that the power availability and proposed pricing would not support an aluminum smelter, and that the project would not continue.

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In December 2008, Alcoa and the Brunei Economic Development Board agreed to further extend an existing MOU to enable more detailed studies into the feasibility of establishing a modern, gas-powered aluminum smelter in Brunei Darussalam. The MOU extends a memorandum signed originally in 2003. Phase one of the feasibility study will determine scope and dimensions of the proposed facility, power-delivery strategy, location, as well as an associated port and infrastructure. At completion of phase one, the parties will determine whether a more detailed phase two study

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is warranted. If completed, it is expected that the smelter would have an initial operating capacity of 360,000 mtpy with the potential for future increase. In 2011, the MOU was further extended to enable determination of feasibility.

In 2007, Alcoa and Greenland Home Rule Government entered into an MOU regarding cooperation on a feasibility study for an aluminum smelter with a 360,000 mtpy capacity in Greenland. The MOU also encompasses a hydroelectric power system and related infrastructure improvements, including a port. In 2008, Greenland's parliament allocated funding to support the second phase of joint studies with Alcoa and endorsed that the smelter be located at Maniitsoq. In 2010, Alcoa and the Greenland Home Rule Government revised the completion dates for feasibility studies associated with development of the proposed integrated hydro system and aluminum smelter at Maniitsoq to enable more detailed consideration of aspects of the project related to construction and provision of energy and to allow the Greenland parliament sufficient time to deliberate and vote on critical aspects of national legislation concerning the project. The feasibility studies were completed in the fourth quarter of 2011. A Greenland Parliamentary vote to allow continued studies for construction and provision of energy is scheduled for late 2012.

In the fourth quarter of 2011, Alcoa and the Government of Angola, through the ministries of Energy, Water & Geology, Mines and Industry, entered into an exclusive MOU regarding cooperation on a feasibility study for an aluminum smelter in Angola with a 720,000 mtpy capacity. The MOU also encompasses a hydroelectric power system and power transmission facilities to be built by the Government and resulting long term purchase power agreement.

Flat-Rolled Products Facilities

The principal business of the company's Flat-Rolled Products segment is the production and sale of aluminum plate, sheet and foil. This segment includes rigid container sheet, which is sold directly to customers in the packaging and consumer market. This segment also includes sheet and plate used in the aerospace, automotive, commercial transportation, and building and construction markets.

As noted above, Alcoa and Madaden entered into an agreement that involves development of a rolling mill in the Kingdom of Saudi Arabia. In 2010, the joint venture entity, Madaden Rolling Company signed project financing for its rolling mill and broke ground on the construction of the mill. Initial capacity is approximately 380,000 mtpy. First production is expected in 2013.

As discussed above, in 2011, Alcoa and the CPI signed an MOU followed by a Letter of Intent that provides a framework for the creation of a joint venture which includes a focus on producing high-end fabricated aluminum products in China. This venture will leverage Alcoa's and CPI's existing footprint and capabilities.

Although the company completed the sale of substantially all of its Global Foil Business in 2009, the company continues to manufacture foil for the end-user market in Itapissuma, Brazil.

Table of Contents**Flat-Rolled Products Principal Facilities**

COUNTRY	LOCATION	OWNERS ¹		PRODUCTS
			(% Of Ownership)	
Australia	Point Henry	Alcoa (100%)		Sheet
	Yennora	Alcoa (100%)		Sheet
Brazil	Itapissuma	Alcoa (100%)		Foil Products/Sheet and Plate
China	Kunshan	Alcoa (70%)		Sheet and Plate
		Shanxi Yuncheng Engraving Group (30%)		
	Qinhuangdao	Alcoa (100%)		Sheet and Plate ²
France	Castelsarrasin	Alcoa (100%)		Sheet and Plate
Hungary	Székesfehérvár	Alcoa (100%)		Sheet and Plate/Slabs and Billets
Italy	Fusina	Alcoa (100%)		Sheet and Plate
Russia	Belaya Kalitva	Alcoa (100%)		Sheet and Plate
	Samara	Alcoa (100%)		Sheet and Plate
Spain	Alicante	Alcoa (100%)		Sheet and Plate
	Amorebieta	Alcoa (100%)		Sheet and Plate
United Kingdom	Birmingham	Alcoa (100%)		Plate
United States	Davenport, IA	Alcoa (100%)		Sheet and Plate
	Danville, IL	Alcoa (100%)		Sheet and Plate
	Newburgh, IN	Alcoa (100%)		Sheet and Plate
	Hutchinson, KS	Alcoa (100%)		Sheet and Plate
	Lancaster, PA	Alcoa (100%)		Sheet and Plate
	Alcoa, TN	Alcoa (100%)		Sheet and Plate
	San Antonio, TX	Alcoa (100%)		Sheet
	Texarkana, TX	Alcoa (100%)		Sheet and Plate ³

¹ Facilities with ownership described as Alcoa (100%) are either leased or owned by the company.

² Alcoa Bohai Aluminum Products Company Ltd. (Bohai), a wholly owned subsidiary of Alcoa, operates an aluminum rolling facility in Qinhuangdao. It has completed its expansion and has ramped up production to 60% of capacity in 2011.

³ The Texarkana rolling mill facility has been idle since September of 2009 due to a continued weak outlook in common alloy markets.

Engineered Products and Solutions Facilities

This segment represents Alcoa's downstream operations and includes titanium, aluminum, and super alloy investment castings; forgings and fasteners; aluminum wheels; integrated aluminum structural systems; and architectural extrusions used in the aerospace, automotive, building and construction, commercial transportation, and power generation markets. These products are sold directly to customers and through distributors. Additionally, hard alloy extrusions products, which are also sold directly to customers and through distributors, serve the aerospace, automotive, commercial transportation, and industrial products markets.

On March 9, 2011, Alcoa completed the acquisition of the aerospace fastener business of TransDigm Group Inc. for approximately \$240 million. The business includes Valley-Todeco Inc., with a facility in Sylmar, California, and

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Linread Ltd., with facilities in Redditch and Leicester, both in the United Kingdom. The new business is part of Alcoa Fastening Systems, which is an Alcoa business unit specializing in the design and manufacture of specialty fastening systems, components, and installation tools for aerospace and industrial applications.

Engineered Products and Solutions Principal Facilities**OWNERS¹**

COUNTRY	FACILITY	(% Of Ownership)	PRODUCTS	
Australia	Oakleigh	Alcoa (100%)	Fasteners	
Canada	Georgetown, Ontario	Alcoa (100%)	Aerospace Castings	
	Laval, Québec	Alcoa (100%)	Aerospace Castings	
	Lethbridge, Alberta	Alcoa (100%)	Architectural Products	
	Pointe Claire,	Alcoa (100%)	Architectural Products	
	Québec Vaughan, Ontario	Alcoa (100%)	Architectural Products	
China	Suzhou	Alcoa (100%)	Fasteners	
France	Dives sur Mer	Alcoa (100%)	Aerospace and Industrial Gas Turbine Castings	
	Evron	Alcoa (100%)	Aerospace and Specialty Castings	
	Gennenvilliers	Alcoa (100%)	Aerospace and Industrial Turbine Castings	
	Guérande	Alcoa (100%)	Architectural Products	
	Lézat-Sur-Lèze	Alcoa (100%)	Architectural Products	
	Merxheim	Alcoa (100%)	Architectural Products	
	Montbrison	Alcoa (100%)	Fasteners	
	St. Cosme-en-Vairais	Alcoa (100%)	Fasteners	
	Toulouse	Alcoa (100%)	Fasteners	
	Us par Vigny	Alcoa (100%)	Fasteners	
	Vendargues	Alcoa (100%)	Architectural Products	
	Germany	Hannover	Alcoa (100%)	Extrusions
		Hildesheim-Bavenstedt	Alcoa (100%)	Fasteners
Iserlohn		Alcoa (100%)	Architectural Products	
Kelkheim		Alcoa (100%)	Fasteners	
Hungary	Nemesvámos	Alcoa (100%)	Fasteners	
	Székesfehérvár	Alcoa (100%)	Aerospace and Industrial Gas Turbine Castings/Forgings	
Japan	Joetsu City	Alcoa (100%)	Forgings	
	Nomi	Alcoa (100%)	Aerospace and Industrial Gas Turbine Castings	
Netherlands	Harderwijk	Alcoa (100%)	Architectural Products	
Mexico	Ciudad Acuña	Alcoa (100%)	Aerospace Castings/Fasteners	
	Monterrey	Alcoa (100%)	Forgings	
Morocco	Casablanca	Alcoa (100%)	Fasteners	
Russia	Belaya Kalitva ²	Alcoa (100%)	Extrusions and Forgings	
	Samara ²	Alcoa (100%)	Extrusions and Forgings	
South Korea	Kyoungnam	Alcoa (100%)	Extrusions	

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