

Case No COMP/M.6945 - ABB/ POWER-ONE

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**REGULATION (EC) No 139/2004
MERGER PROCEDURE**

Article 6(1)(b) NON-OPPOSITION
Date: 22/07/2013

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EUROPEAN COMMISSION

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In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus [...]. Where possible the information omitted has been replaced by ranges of figures or a general description.

PUBLIC VERSION

MERGER PROCEDURE

To the notifying party:

Dear Sir/Madam,

**Subject: Case No COMP/M.6945 – ABB/ Power-One
Commission decision pursuant to Article 6(1)(b) of Council Regulation
No 139/2004¹**

- (1) On 17 June 2013, the European Commission received a notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which the Swiss-based company ABB Ltd. (ABB), the ultimate parent company of the ABB group, acquires within the meaning of Article 3(1)(b) of the Merger Regulation control of the whole of the undertaking Power-One Inc. (Power-One), by way of purchase of shares via Verdi Acquisition Corporation (Verdi Acquisition), an indirectly owned subsidiary of ABB Ltd, created for the sole purpose of the present transaction. ABB, Verdi Acquisition and Power-One are hereinafter referred to as the "Parties".

1. THE PARTIES

- (2) **ABB** is active in power and automation technologies that enable utility and industry customers to improve performance while limiting environmental impact. ABB operates in around 100 countries. ABB's activities are divided into the following five divisions: (i) power products, (ii) power systems, (iii) discrete automation and motion, (iv) process automation, and (v) low voltage products.
- (3) **Power-One** is mainly active on renewable energy converters that convert solar or (to a much lesser extent) wind energy into useable grid connected power. Power-One

¹ OJ L 24, 29.1.2004, p. 1 ("the Merger Regulation"). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ("TFEU") has introduced certain changes, such as the replacement of "Community" by "Union" and "common market" by "internal market". The terminology of the TFEU will be used throughout this decision.

also provides converters and power management products for a variety of applications, including principally data centre technologies and servers for the telecommunications industry. Power-One is active predominantly in Europe, North America and Asia.

- (4) **Verdi Acquisition** is a mere acquisition vehicle, created for the sole purpose of the present concentration and therefore has no activities on any relevant product market.

2. THE CONCENTRATION

- (5) Pursuant to a Merger Agreement dated from 21 April 2013 between ABB, Verdi Acquisition, and Power-One, ABB will acquire 100% of the shares of Power-One, which will continue as the surviving company in the merger and as an indirectly wholly-owned subsidiary of ABB Ltd.
- (6) The proposed transaction therefore constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

3. EU DIMENSION

- (7) The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5 000 million (ABB approx. 30,616.2 million EUR in 2012; Power-One 795.9 million EUR in 2012). Each of them has a EU-wide turnover in excess of EUR 250 million (ABB has approx. [...] EUR in 2012 and Power-One [...] EUR in 2012). Neither company achieves more than two-thirds of its aggregate EU-wide turnover within the same Member State.
- (8) The notified operation therefore has an EU dimension within the meaning of Article 1(2) of the Merger Regulation.

4. COMPETITIVE ASSESSMENT

- (9) The Parties to the proposed transaction are both active in the design, manufacture and sale of renewable energy converters, including solar inverters and wind converters.

4.1. Relevant product and geographic markets

Renewable energy converters

- (10) In previous decisions, the Commission has identified the market for drives as a separate market and, within such a market, it considered potential separate sub-markets for (i) wind converters and (ii) solar inverters as well as a sub-segmentation on the basis of voltage.² In other decisions, the Commission also took the view that the market for drives could be sub-divided according to their power rating characteristics, namely (i) performance up to 100 k (low-end drives) and (ii)

² Case COMP/M.6222 – GE Energy / Convertteam, 25 July 2011, para. 47 et seqq.

performance above 100 kW (high-end drives).³ Ultimately, the Commission left all these questions open.

- (11) The Parties submit that there should be at least an overall market for renewable energy converters, with possible separate sub-segments for solar inverters and wind converters.
- (12) The Commission's market investigation also indicated that wind converters and solar inverters could constitute separate product markets.
- (13) As regards the geographic delineation of the market, the Commission has previously considered the existence of an EEA-wide market for frequency inverters and drives, leaving this question ultimately open.⁴
- (14) Accordingly, the Parties submit that markets are necessarily broader than national, given the common standards of production, sourcing from international sources and the widespread availability of international competitors.
- (15) The Commission's market investigation in the current matter accordingly indicated that the relevant geographic market for renewable energy converters is EEA wide.

Power solutions

- (16) As to power solutions, the Commission's previous decisions defined separate markets for embedded power products and network power systems.⁵
- (17) Accordingly, the Parties submit that embedded power products and network power systems constitute two different product markets, taking into account the different players active in these markets and the different industry reports for each of the businesses.
- (18) Regarding the geographic market definition, the Commission has considered it to be at least EEA-wide.⁶

Low Voltage and Medium Voltage Products

- (19) The previous decisional practice of the Commission indicated that low voltage (LV) electrical equipment is a different market from medium voltage (MV) electrical equipment.⁷ The Commission also identified, within MV products, a variety of sub-products such as MV switching and branching, measurement and control and protection devices, including MV switchgears, MV circuit breakers, disconnectors, lightning arresters, contactors, and distribution transformers, etc. The Commission has also considered further a possible sub-segmentation of certain MV products into

3 Case COMP/M.540 – Cegelec / AEG, 20 February 1995, para. 9 et seqq. Case COMP/M.3809 – Siemens / Flender, 29 June 2005, para. 11 et seqq.;

4 Case COMP/M.3653 – Siemens / VA Tech, 13 July 2005, para. 46; Case COMP/M.3809 – Siemens / Flender, 29 June 2005, para. 20 et seqq.

5 Case COMP/M.1854 – Emerson Electric / Ericsson Energy Systems, 15 March 2000, para. 6.

6 Case COMP/M.1854 – Emerson Electric / Ericsson Energy Systems, 15 March 2000, para. 6. Case COMP/M.5300 – Gores Group LLC / Siemens Enterprise Communications, 19 September 2008, para. 33 et seqq.

7 Case No COMP/M.6642 – Eaton Corporation / Cooper Industries, 23 November 2012, paragraphs 10 et seq.

those used in primary power distribution and those used in secondary power distribution.⁸ The Commission finally left the market definition open.⁹

- (20) The respondents to the Commission's market investigation unanimously confirmed that MV products and LV products constitute different product markets and largely confirmed that LV and MV products can be further subdivided according to each component. In particular the majority of the respondents confirmed that MV circuit breakers constitute a distinct product market.
- (21) Regarding the geographic market definition, the Commission has previously considered that these markets, including possible sub-segments, are at least EEA-wide.¹⁰ The Commission's market investigation largely confirmed such geographic market definition.
- (22) In this case, the precise definition of all the relevant product and geographic markets mentioned above can be left open, given that the proposed transaction is unlikely to raise serious doubts as to its compatibility with the internal market, regardless of the precise market definition retained. Accordingly, the competitive assessment below takes account of the Parties' share of the narrowest possible relevant product and geographic markets.

4.2. Competitive assessment

4.2.1. Horizontal relationships

- (23) The Parties' activities overlap horizontally on the potential relevant product markets for renewable energy converters, including solar inverters and wind converters and related sub-segments, and for embedded power products.
- (24) Power-One is mainly active in solar inverters and has minor sales in wind converters. By contrast, ABB focuses on large scale wind converters and only recently started supplying solar inverters, where its portfolio is limited and its position negligible.¹¹ Within the market of solar inverters, Power-One's offering comprises a range of solar inverters at a power range < 10 kW, up to a power range > 100 kW and ABB offering has been limited to certain < 10 kW solar inverters and > 100 kW solar inverters. In wind converters, Power-One is active only in converters for small scale applications < 100 kW and ABB's offering comprises wind converters > 1 MW and to a very minor extent wind converters > 100 kW-1 MW.¹²
- (25) When looking at the overlaps of the Parties' activities in all possible product market definitions, including the narrowest possible market definition, the Parties' activities

8 Case No COMP/M.6642 – Eaton Corporation / Cooper Industries, 23 November 2012, paragraphs 10 et seq.

9 Schneider Electric / Areva T&D, 26 March 2010, paragraphs 10 et seq.

10 Schneider Electric / Areva T&D, 26 March 2010, paragraphs 30 et seq.

11 [0-5]% on a worldwide and EEA-wide basis in any segment.

12 In fact, almost [90-100]% of ABB's sales in wind converters relate to wind converters at a power range > 1 MW. ABB does not sell wind converters at a power range ≤100 kW.

lead to affected markets only in renewable energy converters at the EEA level, as illustrated by the table below.¹³

Table 1: Parties' market shares in horizontally affected markets at EEA level

	ABB	Power-One	Combined
Renewable energy converters	[0-5]%	[10-20]%	[10-20]%
Solar inverters	[0-5]%	[10-20]%	[10-20]%
Low voltage	[0-5]%	[10-20]%	[10-20]%
Wind converters	[10-20]%	[0-5]%	[10-20]%
Low voltage	[10-20]%	[0-5]%	[10-20]%

- (26) From the above, the Parties' combined market shares in the affected markets are [between 10-20%]. In addition, the respective increments are minimal and below [0-5]%. Furthermore, the Parties' market shares in solar inverters are below the market leader which holds [30-40]%, and in wind converters the Parties' market shares are also below two other larger market players, which hold [20-30]% and [20-30]%.
(27) The Parties also claim that post-transaction they will continue to face strong competition from a significant number of strong players, in a fast-growing industry.¹⁴
(28) On the basis of all of the foregoing, the Commission takes the view that the proposed transaction is unlikely to raise serious doubts as to its compatibility with the internal market, in particular given: (i) the limited market shares of the Parties; (ii) the fact that several strong competitors will continue to exert significant competitive pressure on the Parties post-merger in each of the potential horizontally affected markets; (iii) the fact that the proposed transaction brings about a minor increment in the Parties' market shares on the markets concerned.

4.2.2. Vertical relationships

- (29) ABB sells electrical products and components which can be used downstream in all sorts of electrical products and/or systems (such as LV and MV electrical products),

13 However the Parties submit that a further/alternative segmentation by voltage level is not required for the analysis of the transaction because it will not affect the competitive assessment; it is not in line with industry practice. The Parties also stated that market shares by voltage are based on estimates that might be highly unreliable and not suitable for a robust economic analysis.

14 The Parties submit that annual installed capacity of renewable energy converters has increased by approx. 400% from 2008 to 2012 according to market studies. Significant growth is also expected in the coming years. It is estimated that the renewable energy converter demand will grow at a compound annual growth rate (CAGR) of more than 10% in the period until 2015. Parties also submit that this is true for the solar inverter segment, where estimates are that inverter demand will be subject to a CAGR of 28% on average in the period 2009 to 2015 and demand is expected to grow further at a CAGR of more than 10% in the years 2013 to 2015. As to wind converters, such segment is expected to grow at a CAGR of more approx. 1.5% in terms of revenues between 2011 and 2016.

including in Power-One’s renewable energy converters (including solar inverters and wind converters) and network power systems.¹⁵

- (30) When looking at the overlaps of the Parties' activities in all possible vertical relationships, there are several vertically affected markets where combined shares are [between 20-30]%, as shown by table 2 below.
- (31) In addition, there are two vertically affected markets where market shares are above 30%, namely: (i) the upstream market for MV circuit breakers, where ABB's share amounts to [30-40]% and (ii) the downstream market for wind converters ≤100kW, where Power-One's share is [30-40]% and to which ABB's LV products are an input, as it can be seen from the table below.

Table 2. Parties' market shares in vertically affected markets at EEA level

		ABB's shares in the upstream products			
		LV product overall	LV Circuit Breakers	Moulded-case circuit breakers (MCCBs)	MV Circuit Breakers
		[10-20]%	[20-30]%	[20-30]%	[30-40]%
Power-One's shares in the downstream products	Renewable overall	[10-20]%	[10-20]%	[10-20]%	[10-20]%
	Solar inverters overall	[10-20]%	[10-20]%	[10-20]%	[10-20]%
	Solar inverters <10kW	[5-10]%	-	-	-
	Solar inverters 10-100kW	[20-30]%	[20-30]%	[20-30]%	-
	Solar inverters >100kW	[10-20]%	[10-20]%	[10-20]%	[10-20]%
	Wind converters overall	[0-5]%	[0-5]%	[0-5]%	-
	Wind converters ≤ 100kW	[30-40]%	-	-	-
	Network power systems	[0-5]%	[0-5]%	[0-5]%	-

- (32) The Parties submit that the transaction will not lead to foreclosure concerns in any of the above mentioned markets. In particular, the Parties claim that there is no ability to engage in customer foreclosure due to: (i) the small to moderate combined market shares of the Parties in the downstream affected markets; (ii) the large number of viable competitors in the market; (iii) the fact that Power-One is a small purchaser of the input products both in terms of purchasing value and share of overall demand,

¹⁵ Even if Power-One’s embedded power products and, to a lesser extent, network power systems can also be used as inputs in a variety of different downstream products, including in products offered by ABB, such as drives, auxiliary traction converters or communication systems, there are no affected markets regarding the sales of Power-One to ABB.

accounting for [0-5]% of the market volume¹⁶; (iv) the fact that input products are not specific to Power-One applications; (v) the fact that competitors upstream have sufficient alternatives to sell their products.

- (33) In particular regarding the supply of LV products as an input to wind converters < 100 kW, where Power One is the largest competitor downstream,¹⁷ the Parties submit that upstream market shares are small and in any case below 25%¹⁸ and that Power-One already sources a significant proportion of its input requirements from ABB pre-merger (more than [...]%).
- (34) Similarly, the Parties argue that there will be no ability to engage in input foreclosure for the following reasons: (i) ABB has a small to moderate market share upstream, only in some cases above 20% and faces a range of strong competitors; (ii) there is sufficient capacity in the market to ensure that downstream competitors would find alternative sources of supply, in particular given the small quantities purchased by Power-One; (iii) wholesalers and distributors play a significant role in these markets.
- (35) As to the supply of MV Circuit Breakers in particular, where ABB has the largest upstream market shares in the market,¹⁹ the Parties submit that Power One's downstream market shares are rather small and that such downstream products represent a small share of Power-One's business, especially taking into account that Power-One's purchases from third parties were minor and no purchases from ABB took place in 2012.²⁰ In addition, Parties submit that MV circuit breakers can be used for a variety of electrical products, that it is often the customer who determines the types of products and the suppliers and that there are no compatibility issues. Finally, the Parties submit that competitors active in producing MV circuit breakers are often vertically integrated in relation to at least some of the downstream uses.
- (36) The respondents of the Commission's market investigation largely confirmed that MV circuit breakers can be used for a wide range of applications downstream in addition to solar inverters and wind converters. Furthermore, respondents on the demand side largely confirmed that post-transaction they will be capable of fully sourcing their needs for MV circuit breakers from suppliers other than the Parties.

16 Power-One sourced EUR [...] LV products from ABB and approx. EUR [...] from third party manufacturers in 2012. Power-One did not source any MV products from ABB but sourced approx. EUR [...] worth of MV products from third party manufacturers in 2012.

17 Power-One's market shares downstream are [30-40]%, which corresponds to the highest market share, against SMA ([30-40]%) and Gendive ([10-20]%) and Bonfiglioli ([10-20]%).

18 ABB market shares upstream are below 25%: in LV products ([10-20]%) and the sub segments of LV surge devices ([5-10]%), LV fixing and connecting equipment ([0-5]%), LV terminal blocks ([5-10]%), LV residual current devices ([20-30]%), LV fuses ([0-5]%), LV switches ([10-20]%) and LV signalling units ([10-20]%)

19 With the next two largest competitors having [10-20]% and [10-20]% market shares.

20 Power-One's overall purchases of MV products (including MV Circuit Breakers but also MV switchgears, MV protection relays, MV fuses) amounted to [...] Euros. The Parties estimate the volume in 2012 of overall MV Circuit Breaker sales worldwide to be at approx. EUR 1.7 billion and at approx. EUR 115 million in the EEA. Thus, even on the basis of Power-One's undifferentiated, inflated purchasing figure of EUR [...], Power-One's share of overall sales of MV Circuit Breaker would be negligible at less than [0-5]% at worldwide level and about [0-5]% at EEA-wide level. Power-One's actual share of purchases is even smaller.

- (37) Furthermore, the Commission's market investigation from the supply side did not indicate that the proposed transaction would have a significant effect on competition and also indicated that suppliers would not have sufficient alternatives downstream to sell their MV circuit breakers post-merger.
- (38) On the basis of all of the foregoing, the Commission takes the view that the proposed transaction is unlikely to raise serious doubts as to its compatibility with the internal market as a result of vertical effects, in particular given that: (i) the Parties' market shares are moderate; (ii) several competitors will continue to exert significant competitive pressure on the Parties post-merger in each of the potential vertically affected markets; (iii) the Parties are generally not the most important suppliers or purchasers of the products; (iv) the inputs are not specific and (v) there are sufficient alternatives to sell the products downstream and sufficient alternative suppliers.

4.2.3. Conglomerate effects

- (39) The Parties' activities are complementary in relation to renewable energy converters, including solar inverters and wind converters, embedded power products and network power systems.
- (40) However, the Parties submit that the proposed transaction also does not give rise to conglomerate concerns. In particular, in relation to renewable energy converters, the product categories offered by Power-One in the EEA, have already been part of ABB's product offering prior to the proposed acquisition. In addition, the moderate sales shares of ABB to Power-One post-transaction for such products, especially given the existence of large competitors, exclude concerns. In relation to embedded power products and network power systems, ABB does not have its own offering, and Power-One's is a relatively small market player, facing a large number of strong competitors in a highly competitive and fragmented market.
- (41) On the basis of all of the foregoing, the Commission takes the view that the transaction is unlikely to raise serious doubts as to its compatibility with the internal market as a result of conglomerate effects.

5. CONCLUSION

- (42) For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation.

For the Commission
Signed,
Joaquín ALMUNIA
Vice-President