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Contains business secrets

Our reference 4970792/6
Lawyer in charge Siri Teigum

Oslo, 19 July 2011

STANDARDIZED NOTIFICATION OF A CONCENTRATION – ABB SCHWEIZ AG – PGC POWERGEN CONSULTING SA/TRASFOR SA

1 The notifying party

Name: ABB Schweiz AG
Reg. number: VAT 010 401, cantonal number 229 466.

Address: Brown Boveri Strasse 6, 5400 Baden, Switzerland

Contact: Advokatfirmaet Thommessen
Advokat Kirti Mahajan Thomassen
Tel: 23 11 13 58
E-mail: kmt@thommessen.no

2 Other undertakings concerned

Name: PGC Powergen Consulting SA
Reg. number: CH-501.3.011.606-2
Address: 6995 Molinazzo di Monteggio, Switzerland

3 Nature of the concentration

ABB Schweiz AG and the current shareholders of PGC Powergen Consulting SA have entered into a share purchase agreement whereby ABB Schweiz AG will acquire the entire share capital of PGC Powergen Consulting SA, including the entire share capital in its wholly owned subsidiary, Trasfor SA.

The concentration is also being filed in Austria, Brazil, Italy and Spain.

4 The structure and business areas of the undertakings concerned

4.1 PGC Powergen Consulting SA (the Target Business)

PGC Powergen Consulting SA ("PGC") is a holding company and ultimate parent entity of the Swiss-based company Trasfor SA (together with its group companies referred to as "Trasfor") of which PGC owns the entire share capital.

4.2 Trasfor

4.2.1 General information

Trasfor is active within manufacturing and sales of inter alia Dry-type transformers. Its products are sold to customers in various industries. The companies that belong to Trasfor and are thus transferred as part of this transaction are:

- Trasfor SA: A Swiss company established to manufacture transformers in Switzerland.
- Trasfor International SA ("Trasfor International"), Luxembourg: A company established for holding purposes. The entire share capital is held by Trasfor SA.
- Italtrasfo S.r.l., Italy: A company established for the production of low voltage transformers. At closing Trasfor International holds 100% of the shares.
- Intermagnetics S.r.l., Italy: A company established for the production of low voltage transformers. At closing Trasfor International holds 100% of the shares.
- TrasfoReal Estate S.r.l., Italy: A company established for the purpose of owning real estate (production facilities). At closing Trasfor International holds 100% of the shares.
- Trasfor Engineering GmbH, Germany: A company established for sales purposes. The entire share capital is held by Trasfor International.
- Trasfor Charoenchai Ltd., Thailand: Participation in a start-up joint venture in Thailand. Trasfor International controls 51% of the shares.
- Trasfor Electric Ltd., United Kingdom: A company established for sales purposes. The entire share capital is held by Trasfor SA.

Trasfor does not have a subsidiary in Norway.

In 2010, Trasfor's global turnover and its turnover within EEA amounted to approximately [REDACTED] and [REDACTED] respectively. In total, Trasfor has approximately 380 employees of which 300 are based in Switzerland.

Trasfor had turnover related to the following products in 2010, each of which will be further described below¹:

- Dry-type transformers (approx. [REDACTED] of Trasfor's revenues in 2010).
- Direct water-cooled reactors and transformers (approx. [REDACTED] of Trasfor's revenues in 2010).
- Reactors and chokes/inductors (approx. [REDACTED] of Trasfor's revenues in 2010).

¹ [REDACTED]

4.2.2 Dry-type transformers

Dry-type transformers are voltage changing (Step-up or Step-down) or isolation devices that are air cooled rather than liquid cooled. The transformer case is ventilated to allow air to flow and cool the coil(s). "Dry-type" simply means that it is cooled by normal air ventilation. The dry-type transformer does not require a liquid such as oil or silicone or any other liquid to cool the electrical core and coils.

Dry-type transformers are ideal for applications where the transformers have to be installed near the place of use and where potential contamination of the environment by leaking oil and explosion and fire risk for people and the environment have to be avoided. They are environmentally safe and suitable for both indoor and outdoor applications. They can be manufactured with different technologies and based on this be further divided into open-wound transformers and cast-resin transformers. These two types mainly perform the same function. Dry-type transformers are typically distribution transformers.

Trasfor manufactures and sells the following Dry-type transformers:

- in cast-resin technology² for medium-voltage ("MV") applications (up to 25 MVA and up to 36 kV).
- in open-wound technology³ for low-voltage ("LV") applications up to typically 1 kV; in few special cases also for medium-voltage applications up to 12 kV, in exceptional cases even up to 24 kV, with ratings up to 15 MVA.

4.2.3 Direct water-cooled reactors and transformers

Water-cooled reactors and transformers are dry-type components with an additional integrated piping system which allows more efficient cooling by water instead of cooling by air.

Trasfor manufactures and sells the following direct water-cooled transformers and reactors:

- With power ratings up to 16 MVA and voltages up to 1.1 kV.

4.2.4 Reactors, chokes/ inductors

Reactors and chokes (or inductors) are technically the same product. A reactor is a component that helps to adjust the voltage and/or current in an electric system, e.g. to compensate a capacitance or to limit a current.

Trasfor's reactors and chokes/inductors are:

- For LV and MV applications with ratings up to 25 MVA, 36 kV and currents of 50 kA.

Further information about Trasfor may be found at www.trasfor.com.

4.3 ABB Schweiz AG (the Acquirer)

4.3.1 General information

ABB Ltd is a Swiss based company and the ultimate parent company of the ABB group of companies (together with its group companies "ABB"). Its headquarters are at Affolternstrasse 44, 8050 Zürich, Switzerland. ABB is a global provider of power and automation technologies that enable utility and

² Sometimes also called Vacuum Cast Coil or VCC transformers.

³ Sometimes also called dry transformers.

industry customers to improve performance while limiting environmental impact. ABB operates in around 100 countries and employs about 124,000 people. 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. These five divisions operate across two key industries: the power industry and the automation industry. The Proposed Transaction only affects ABB's Power Products division.

ABB's stock is listed on the SIX Swiss Exchange as well as on the NASDAQ OMX Stockholm and New York Stock Exchange (NYSE). Its shares are widely held among a large number of shareholders, none of whom exercises, either individually or collectively, a decisive influence on the company.

The acquiring entity for the purposes of the proposed transaction will be ABB Schweiz AG, Brown Boveri Strasse 6, 5400 Baden, Switzerland. ABB Schweiz is an indirectly wholly owned subsidiary of ABB.

In Norway, ABB conducts its business through ABB Holding AS (reg. no. 911 374 285) and the following fully-owned subsidiaries:

- ABB AS (reg. no. 982 085 160)
- EIE 1 AS (reg. no. 991 737 502)
- EIE 2 AS (reg. no. 991 737 545)
- Elektrisk Bureau AS (reg. no. 988 303 887)

Further information about ABB may be found at www.abb.com or www.abb.no.

4.3.2 ABB's MV Dry-type transformers

With regard to Trasfor's products, ABB manufactures and supplies only medium-voltage dry-type transformers, with primary voltages up to 72.5 kV⁴. All ABB's dry-type transformers produced and supplied in the EEA are medium-voltage (MV) products and are based on cast-resin technology⁵.

ABB does not manufacture reactors/chokes or water-cooled transformers in dry-type technology for LV or MV applications.

5 Turnover in Norway last financial year

	Company	Turnover
Notifying party (from section 1)	ABB	EUR 543,300,000
Other undertaking(s) concerned (from section 2)	Trasfor	

⁴ See www.abb.com/products/us/9AAC30405576.aspx?country=DE.

⁵ ABB only manufactures open-wound dry-type transformers in the USA for sale only on the North American market.

Trasfor's annual reports and accounts for 2010, from which the figures stated above have been deduced, have not yet been published and we therefore kindly request that the information is treated as a business secret, c.f. section 9 below.

6 AFFECTED MARKETS

6.1 Relevant product market

The transaction will only lead to a horizontal overlap between the parties' activities for MV Dry-type transformers.

The parties are not aware of any decisions made by the Norwegian Competition Authority with regard to the affected product(s). With reference to the EU Commission's practice, the parties suggest to define markets by voltage level and possibly by product type.

The EU Commission has stated that when defining product markets in the area of electrical equipment, voltage levels are decisive and that there are different product markets for low-, medium- and high-voltage products. This was last done in *Schneider Electric/Areva* (i.e. Commission Decision in M.5755 *Schneider Electric/Areva T&G* of 26 March 2010), where the EU Commission in para. 8 referred to the six product segments already listed in the *Areva/Alstom* decision of 2003. These are:

- (i) high voltage products (between 52kV and 800kV),
- (ii) medium voltage products, including distribution transformers (between 1kV and 52 kV),
- (iii) power transformers,
- (iv) transmission systems and distribution systems,
- (v) energy automation and information systems, and
- (vi) transmission and distribution services.

The Parties are not aware of any decision where the EU Commission has decided whether MV Dry-type transformers should be regarded as a separate product market within MV products. Most of the respondents to the market investigation in *Schneider Electric/Areva* (i.e. Commission Decision in M.5755 *Schneider Electric/Areva T&G* of 26 March 2010) considered that each MV product fulfils specific needs, requires different expertise to manufacture and is thus not interchangeable. However, in the end the EU Commission left open whether each MV product constitutes a separate product market.

The Spanish Competition Authority has in several previous cases defined a separate product market for distribution transformers.⁶

The Parties are of the opinion that the exact product market definition can be left open in the present case.

Nevertheless, the Parties will present market shares on the level of MV Dry-type transformers as this is the most narrow possible product market definition.

⁶ N-04090 *RS Isolec/Transformers Business Line Spain*, N-06039, 21 *CP/Vulcanic*, C-0129-08 *Saibot/RSVP/21 Investimenti Partner*.

6.2 Relevant geographic market

The EU Commission has several times held that markets for MV products are at least EEA-wide for the following reasons⁷:

- There are no trade barriers through technical standards;
- The vast majority of customers and major suppliers are active at the EEA level; and
- Transportation costs do not limit the ability of manufacturers to compete effectively in countries where they do not have production.

Also the Spanish Competition Authority in its decisions on distribution transformers acknowledged an EEA-wide dimension, although ultimately leaving the exact market definition open.

As the EEA seems to be the smallest possible geographic market, the Parties will present market shares on an EEA level.

6.3 The Parties' market presence

In the affected market, i.e. the market for MV Dry-type transformers within the EEA, the Parties will not have a combined market share that exceeds 20%. This is also the case if one were to look at an EEA-wide market for distribution transformers where the combined market share would be [REDACTED] (of which ABB and Trasfor held [REDACTED] and [REDACTED] respectively).

The combined market shares of ABB and Trasfor on the market for MV dry-type transformers in the EEA in 2010 are estimated to amount to [REDACTED] (of which ABB and Trasfor held [REDACTED] and [REDACTED] respectively). In comparison, the parties estimate that their closest competitors, [REDACTED] in 2010 held market shares of [REDACTED], [REDACTED] and [REDACTED] respectively.

Details are set out in the table below:

EEA MV Dry-type transformers	2010	
	In MUSD	In %
Total market		
ABB		
Trasfor		

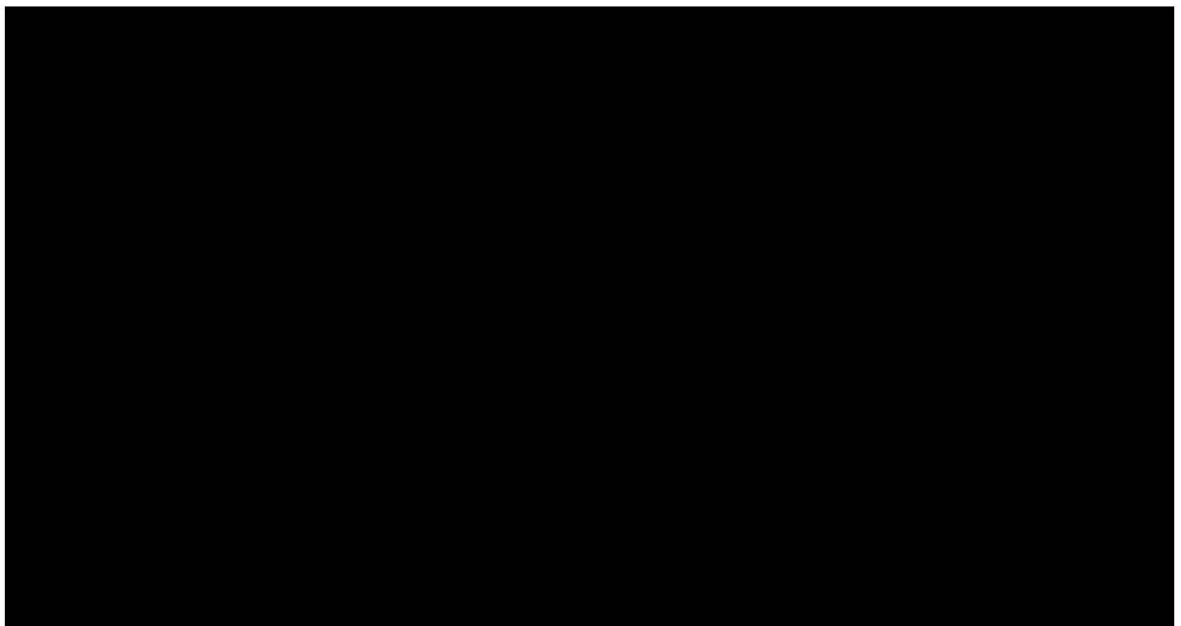
⁷ COMP/M.5755 *Schneider Electric/Areva T&D*, paras. 27ff.

EEA MV Dry-type transformers	2010	
	In MUSD	In %

Source: Goulden report and ABB estimate. ABB and Trasfor sales have been provided by the respective party.

In addition, there is a significant number of MV Dry-type transformer manufacturers active throughout the EEA with market shares of approx. 1% or below (their market shares have been accumulated under **"Others"** in the matrix above). This includes inter alia the following market players:

-
-
-
-
-
-
-



Although, the parties are of the opinion that the geographical market for MV Dry-type transformers is at least EEA-wide in scope, we shall for the sake of completeness present shares for MV Dry-type transformers and provide additional information concerning the sale of these MV Dry-type transformers in Norway.

Total sales of MV Dry-type transformers in Norway are estimated by the Parties to amount to approximately [REDACTED] in 2010. The Parties therefore estimate that they in 2010 would have a combined share of [REDACTED] (of which ABB and Trasfor would hold [REDACTED] and [REDACTED] respectively). In comparison, the parties estimate that [REDACTED] and [REDACTED] in such a market would have market shares of [REDACTED] and [REDACTED] respectively.

Importantly, the effects of the parties' combined shares in Norway for MV Dry-type transformers are less significant than the estimated share suggests when seen in isolation.

In Norway, ABB is a large customer of Trasfor for MV Dry-type transformers. As it is typical for the general application of MV Dry-type transformers in Norway, ABB integrates such transformers into applications for ships and offshore oil & gas installations and sells such integrated systems to end-customers, at least 50% of which typically outside of Norway.

ABB sources about [REDACTED] of its Dry-type transformer requirements for these applications internally, and about [REDACTED] from Trasfor.

Trasfor's total turnover in Norway amounts to approximately [REDACTED] (equalling [REDACTED] as stated in section 5 above). Sales to ABB amount to approximately [REDACTED] hereof. Sales to [REDACTED] amount to [REDACTED]. The remaining is turnover from sales to [REDACTED]

[REDACTED] and from sales to [REDACTED]

From a Norwegian perspective, the transaction would essentially lead to a back-integration of one of ABB's suppliers into ABB or vice-versa. A major part of Trasfor's sales in Norway would thus in the future be captive sales.

In the parties' opinion, the potential competitive concerns that might arise out of the contemplated transaction, if considered solely from the perspective of MV Dry-type transformers in Norway, is either foreclosure of competitors (to ABB/Trasfor) in the upstream market for sale of such transformer or foreclosure of competitors (to ABB) in the downstream market for purchase of MV Dry-type transformers, in particular for integration into applications for ships and off shore oil & gas installations. As will be demonstrated in the following, neither of these concerns are likely to actually materialise as a consequence of the present case.

As regards potential foreclosure of customers in the upstream market for sale of MV Dry-type transformers, the parties point to the fact that their existing supplier-customer relationship implies that ABB to a limited extent is a relevant customer for the upstream competitors. Further to this, ABB represents no more than approximately [REDACTED] of the current customer base for MV Dry-type transformers in Norway (calculated as Trasfor's sale to ABB ([REDACTED]) divided by the estimated total value of the market ([REDACTED])). Therefore, a sufficiently large customer base will still be present for upstream competitors to approach, c.f. the principle expressed in the Commission's Guidelines on the Assessment of Non-Horizontal Mergers, para. 61.

A particular aspect in Norway is that a major part of MV Dry-type transformers are built into marine and off shore oil & gas applications, implying that the market growth is dependent on the overall development of the marine business. In the parties' experience, the marine business is taking up strongly again after the financial crisis from 2008 and onwards, and the parties estimate that the growth

rate for this market could be in the order of [REDACTED]. It must therefore be expected that the customer base will increase.

As regards potential foreclosure of customers in the downstream market, input competitors of ABB already today to a large extent source their requirements for MV Dry-type transformers from other suppliers than Trasfor. As demonstrated above, these other suppliers are large international market players such as [REDACTED]. In addition, there is a broad range of smaller suppliers within EEA that could **meet downstream customers' need for MV Dry-type transformers**. Also, there is free capacity available given the fact that strong business growth in the years 2005 to 2008 made many EEA manufacturers expand their capacity. Since the economic downturn starting in 2008, many companies have not been able to fill this expanded capacity. Post-closing, the Parties will continue to offer their products to third parties. Again, it should be taken into consideration that this is a market in growth and that existing or potential new suppliers are expected to respond to an increased demand for MV Dry-type transformers. Notably, entry barriers are low as the base technology has been available for more than 20 years (i.e. any patents have expired) and the production requires a minimum of investment. Manufacturers of other types of transformers, for example oil-filled transformers, or even manufacturers of electric motors or generators, can **in the parties' view** relatively easily commence production of Dry-type transformers.

Against this background, the parties are of the opinion that ABB post-merger will not have the ability to cause foreclosure neither of upstream nor downstream competitors. For the same reasons, ABB will also not be in a position to exercise any potential market power over any of its MV Dry-type transformer customers in Norway.

7 Most important competitors, customers and suppliers within MV dry-type transformers

7.1 The parties' most important competitors in the EEA and Norway for the manufacture of MV dry-type transformers

2010	Competitor	Location	Contact details
1	[REDACTED]		
2			
3			

2010	Competitor	Location	Contact details
4			
5			

7.2 Most important customers for MV dry-type transformers

7.2.1 ABB's top five customers in the EEA

2010	Customer	Location	Contact details
1			
2			
3			
4			
5			

Source: ABB

7.2.2 ABB's top five customers in Norway

2010	Customer	Location	Contact details
1			
2			
3			
4			
5			

Source: ABB

7.2.3 Trasfor's top five customers in the EEA

2010	Customer	Location	Contact details
1			
2			
3			
4			

2010	Customer	Location	Contact details
5			

Source: Trasfor

7.2.4 *Trasfor's top five customers in Norway*

2010	Customer	Location	Contact details
1			
2			
3			
4			

Source: Trasfor

7.3 **Most important suppliers for the manufacture of MV dry-type transformers**

7.3.1 *ABB's top five suppliers in EEA for the manufacture of MV dry-type transformers*

2010	Supplier	Location	Supplied material	Contact detail
1				

2010	Supplier	Location	Supplied material	Contact detail
2				
3				
4				
5				

7.3.2 **ABB's top five suppliers in Norway for the manufacture of MV dry-type transformers**
None as ABB does not manufacture MV dry-type transformers in Norway.

7.3.3 **Trasfor's top five suppliers in EEA for the manufacture of MV dry-type transformers**

2010	Supplier	Location	Contact details
1			
2			

2010	Supplier	Location	Contact details
3			
4			
5			

7.3.4 *Trasfor's top five suppliers in Norway for the manufacture of MV dry-type transformers*

None as Trasfor does not manufacture MV dry-type transformers in Norway.

8 Annual reports and annual accounts

ABB group annual report and accounts for 2010 are publicly available at www.abb.com. Annual reports and accounts for 2010 for **ABB's Norwegian subsidiaries** are available at the Norwegian Registry of Business Enterprises in Brønnøysund.

Trasfor's and PGC's annual reports and accounts for 2010 are enclosed as **Exhibit 1 and 2**.

9 Business secrets

Business secrets are highlighted in bold and double underline format. Exhibit 1 and 2 are also to be treated as business secrets.

10 CONCLUDING REMARKS

In the relevant market, i.e. the market for MV Dry-type transformers in EEA, the concentration will only **bring about an insignificant increase of ABB's market share** which in any event will remain well below 20%. This is also the case if the market were to be defined as an EEA-wide market for distribution transformers. Even if looking only at sales of MV Dry-type transformers in Norway, where ABB post-merger would have high shares, the prevailing market conditions imply that the effects of the concentration are much less significant than such share suggests.

Against this background, the parties submit that the concentration will not lead to or increase a significant lessening of competition contrary to the purpose of the Norwegian Competition Act. Consequently, there are no grounds for intervention.

Until 21 July, please copy my colleague advokat Kristin Hjelmaas Valla (khv@thommessen.no) on any e-mail correspondence in this matter and between 22 July and 7 August, please copy my colleague advokat Fredrik Bøckman Finstad (fbf@thommessen.no) on any e-mail correspondence in this matter.

Yours sincerely

Advokatfirmaet Thommessen AS



Kirti Mahajan Thomassen
Advokat

Encl