



R E P O R T

INVESTIGATION INTO THE ALLEGED DUMPING OF POWER TRANSFORMERS

EXPORTED FROM

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INDONESIA, THE REPUBLIC OF KOREA AND TAIWAN,
THAILAND AND THE SOCIALIST REPUBLIC OF VIETNAM

VISIT REPORT – AUSTRALIAN INDUSTRY

WILSON TRANSFORMER COMPANY PTY LTD

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August 2013

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2 BACKGROUND

2.1 The application

On 8 July 2013, Wilson Transformer Company Pty Ltd (Wilson Transformers) lodged an application requesting that the Minister for Home Affairs (Minister) publish dumping duty notices in respect of power transformers exported to Australia from China, Indonesia, Korea, Taiwan, Thailand and Vietnam. Wilson Transformers alleges the Australian industry has suffered material injury caused by power transformers exported to Australia from the nominated countries at dumped prices. It claims the industry has been injured through:

- loss of sales volumes;
- loss of market share;
- price undercutting;
- price suppression;
- reduced revenues;
- reduced profits;
- reduced profitability;
- reduced orders on hand;
- reduced capacity utilisation; and
- reduced employment.

Wilson Transformers nominated a three year investigation period, including the 2010-11, 2011-12 and 2012-13 financial years.

Public notification of initiation of the investigation was made on 29 July 2013 in *The Australian* newspaper and Australian Dumping Notice (ADN) No. 2013/64.

2.2 Purpose of visit

We explained to Wilson Transformers that the purpose of our visit was to:

- obtain general information about the Australian market for power transformers;
- gain a greater understanding of Wilson Transformers' manufacturing, marketing, sales and distribution processes;
- verify information provided in the applications;
- obtain additional financial data to assist in the analysis of the claimed injury to the Australian industry;
- give the company the opportunity to provide any further comments or raise any further issues it believed relevant to the investigation; and
- discuss and gather data relevant to establishing unsuppressed selling prices.

2.3 Contact details

The applicant provided the following contact details.

Company	Wilson Transformer Company Pty Ltd 310 Springvale Road Glen Waverly VIC 3150
Company representative	Mr Robin Winckworth
Telephone	03 9560 0411
Fax	03 9560 0499
Email	robin.winckworth@wtc.com.au
Date of visits	6 to 8 July 2013

The following were present at various stages of the interview.

Wilson Transformers	Mr Robert Wilson, Managing Director Mr Robin Winckworth, Finance Director Mr Ed Wilson, General manager — PBU Mr Bob Bagnara, Sales and Marketing Manager — PBU Mr Deepak Maini, Engineering Design Manager — PBU Mr Siew Loh, Financial Controller — PBU Mr Yeoh Siok Lin, Management Accountant — PBU
Anti-Dumping Commission	Mr Chris Vincent, Manager Operations 1 Ms Pamela Garabed, Supervisor, Operations 1

2.4 Investigation process and timeframes

We advised Wilson Transformers of the investigation process and timeframes as follows:

- the investigation period is July 2010 to June 2013;
- the Anti-Dumping Commission (the Commission) will examine the Australian market from July 2008 for the purpose of analysing the condition of the Australian industry;
- a preliminary affirmative determination may be made no earlier than 60 days after the date of initiation (27 September 2013) - provisional measures may be imposed at the time of the preliminary affirmative determination or at any time after the preliminary affirmative determination has been made, but the Commission would not make such a determination until it was satisfied that there appears to be, or that it appears there will be, sufficient grounds for the publication of a dumping duty notice;
- a statement of essential facts will be placed on the public record by 18 November 2013 or such later date as the Minister allows - the statement of essential facts will set out the material findings of fact on which the Commission intends to base its recommendations to the Minister and will invite interested parties to respond, within 20 days, to the issues raised (submissions received in response to the statements of essential facts will be considered when compiling the report and recommendations to the Minister);

- the Commission's report to the Minister is due no later than 31 December 2013 - should the Minister approve an extension to the statements of essential facts this would mean that the due date of the final reports would also be extended - all interested parties would be notified and an Australian Dumping Notice would be issued should extensions be requested and approved.

We explained to Wilson Transformers that we would prepare a report of our visit. The report will be provided to the company to review its factual accuracy and to identify those parts of the report it considered confidential. Following consultation about confidentiality, we would prepare a non-confidential version of the report for the public record.

3 COMPANY BACKGROUND

Wilson Transformers commenced manufacturing in South Melbourne in 1933. In the early 1950's the company moved its operations to Glen Waverley, the present site of its head office and power transformer manufacturing operations. This plant has progressively developed and expanded over the years.

Between 1963 and 1982, Wilson Transformers operated a small distribution transformer manufacturing plant in South Australia to supply the South Australian market. In 1981, Wilson Transformers established an award winning distribution transformer plant in the Albury/Wodonga National Growth Centre. The South Australian plant was closed after the establishment of the Wodonga operations. In 1994 a decision was made to create separate power and distribution business units to generate focus within the businesses and the remaining distribution transformer manufacture was transferred from Glen Waverley to Wodonga.

Today, Wilson Transformers operates from both factories in Glen Waverley and Wodonga, employing over 630 people. A sales support office has been opened in West Sussex, United Kingdom for sales and marketing operations in the UK, and the Middle East.

Wilson Transformers is wholly owned by Wilson Transformer Holdings Pty Ltd, which also wholly owns another company that owns property in Wodonga which is part of the distribution transformers production facility. This company is 99.9% owned by the Wilson family investment company, Jaberope Pty Ltd.

Wilson Transformers wholly owns WTC investments Pty Ltd, which has interests in joint ventures in Malaysia and the Middle East. It also wholly owns Dynamic Ratings Pty Ltd, a company that provides the monitoring, control and communication solutions for electrical power apparatus, with the USA being its major market.

Wilson Transformers claimed it is the largest Australian owned manufacturer of power and distribution transformers.

Wilson Transformers uses EPICOR – Version E9 ERP and accounting system which is configured as a job costing system for the PBU. The performance of each operating group is consolidated in the Wilson Group profit and loss account. During the verification, Wilson Transformers provided profit and loss statements for:

- PBU (Power Business Unit) & Service and Repairs & DBU (Distribution Business Unit);
 - DBU;
 - PBU & Service and Repairs;
 - PBU;
 - Refurbishment & Services; and
- Dynamic Ratings.

Wilson Transformers supplies power transformers directly from its manufacturing plant in Glen Waverly to purchasers and end users.

4 THE GOODS

4.1 Introduction

In June 2012, the US Department of Energy published a paper titled *Large Power Transformers and the US Electric Grid*. The report stated that large power are very expensive and tailored to customers' specifications, are usually not interchangeable with each other or produced for extensive spare inventories. The report stated that approximately 1.3 power transformers are produced for each transformer design.

The report also stated that the size of a power transformer is determined by the primary (input) voltage, the secondary (output) voltage, and the load capacity measured by megavolt amperes (MVA). Of the three, the capacity rating, or the amount of power that can be transferred, is often the key parameter rather than the voltage. In addition to the capacity rating, voltage ratings are often used to describe different classes of power transformers, such as extra high voltage, 345 to 765 kilovolts (kV); high voltage, 115 to 230 kV; medium voltage, 34.5 to 115 kV; and distribution voltage, 2.5 to 35 kV. The US study did not include distribution transformers.

4.2 The goods and like goods

Wilson Transformers described the goods as:

liquid dielectric power transformers with power ratings of equal to or greater than 10 MVA (mega volt amperes) and a voltage rating of less than 500 kV (kilo volts) whether assembled or unassembled, complete or incomplete

Wilson Transformers stated that complete power transformers are subassemblies consisting of the active part and any other parts attached to imported with or invoiced with the active parts of power transformers, plus other other subassemblies and parts which may be imported separately or sourced locally but which will all be assembled together into the finished product. The active part of a power transformer consists of one or more of the following when attached to, or otherwise assembled with, one another.

- The steel core - constructed from high grade, cold rolled, grain orientated silicon steel. This steel is only available from a limited number of overseas manufacturers.
- The windings - manufactured from high conductivity copper which are rectangular in cross section and either paper wrapped or enamel coated.
- Electrical insulation between the windings. This is highly specialised paper based material specifically for the transformer industry and manufactured in a number of countries including China, Germany, India, Sweden, Switzerland, Turkey and the USA. No substitutable product is manufactured in Australia
- The mechanical frame.

Wilson Transformers considers that the product definition includes step-up transformers, step-down transformers, autotransformers, interconnection

transformers, voltage regulator transformers, rectifier transformers, traction transformers, trackside transformers and power rectifier transformers.

The goods include liquid dielectric power transformers. In most cases the liquid is mineral oil, but it can be other fluids such as natural esters (vegetable oils) and synthetic esters. Wilson Transformers produces power transformers filled with a vegetable oil called E-FR3, which is a fire resistant natural ester. It stated this oil is more expensive than mineral oil, but the E-FR3 is biodegradable and it reduces degradation of the paper insulation.

Use and functionality

Transmission lines transmit electricity at very high voltages but at reduced current (amps). The higher the amperage the greater the size of the conductor needed to carry the current resulting in increased costs and power losses. Transformers are used to increase the voltage and proportionately reduce the amperage so that large quantities of electricity can be transported efficiently with minimal power losses.

Power is typically generated at 5 to 30 kV, but transmission normally occurs at 66 to 500 kV. Power transformers that increase the output voltage from the generator for long distance transmission are known as step-up transformers and can have very large power ratings, often 100 to 600 MVA. Power transformers that take the higher transmission voltages and convert them to lower voltages suitable for distribution systems are known as step-down transformers.

Purchasers of power transformers include electrical utility companies, power generators, mining companies, LNG processors and industrial users. Essentially all power transformers are produced to order and are typically sold through a bid and contract award (tender) process.

Excluded goods

Gas filled and dry type power transformers are not included in the goods. Wilson Transformers stated that these types of power transformers are much more expensive and are used when it is necessary to reduce the risk of fire. Dry power transformers can only be produced with a power rating of up to about 20 MVA.

The application states that distribution transformers are excluded from the description of the goods. Australian Standard AS 60076.1-2005 defines a power transformer as

A static piece of apparatus with two or more windings which, by electromagnetic induction, transforms a system of alternating voltage and current into another system of voltage and current usually of different values and at the same frequency for the purpose of transmitting electrical power.

Wilson Transformers believes there is no clear definition of a distribution transformer, but that they are power transformers under this definition. It claims that in Australia, the generally accepted definition of a distribution transformer is one that is the last point of connection to a residential and often commercial consumer. They have a power rating less than or equal to 2 MVA, a primary voltage of 11 kV or 22 kV, and a secondary voltage of between 400 volts and 433 volts three phase (equivalent to 230 volts to 250 volts single phase).

The Commission will further consider this issue during the investigation.

Tariff classification

The goods are classified to tariff subheadings 8504.22.00 (statistical code 25) and 8504.23.00 (statistical codes 26 and 41) to Schedule 3 of the Customs Tariff Act 1995. The general rate of duty is currently 5% and applies to power transformers imported from China, Korea, and Taiwan. Indonesia, Thailand and Vietnam are subject to the ASEAN-Australia-New Zealand free trade agreement and the rate for power transformers from these countries is free.

4.3 Like goods

Physical likeness

Wilson Transformers stated that the physical characteristics of imported and locally produced power transformers are similar. They are designed and manufactured to equal the performance and quality levels of the goods the subject to the application.

Commercial likeness

Wilson Transformers stated that the power transformers it produces competes directly with imported power transformers in the Australian market.

Functional likeness

Wilson Transformers stated that both locally produced and imported power transformers have comparable or identical end-uses.

Production likeness

Wilson Transformers stated that locally produced and imported power transformers are manufactured in a similar manner using similar production processes.

Conclusion

Based on information submitted in the application and gathered during the visit, we are satisfied that locally produced power transformers are like goods to imported power transformers. The Commission will further consider this issue during the investigation.

5 AUSTRALIAN INDUSTRY

5.1 Introduction

Wilson Transfers provided a brief history of the Australian power transformer industry.

In the 1970's most power transformers used in Australia were produced locally. The two largest producers were Tyree Westinghouse (became ABB Australia) and English Electric (became Alstom); Wilson Transformers was the third largest. In the 1990's there was a major downturn in the market. Wilson Transformers exported substantial quantities to Asia and its business grew as a result. During this period ABB Australia remained committed to Australia and New Zealand and Alstom exported to a range of countries including South America.

In the late 1990's two major power utilities, Ausgrid and ENERGEX, put their business out to tender and Wilson Transformers won long term contracts to supply these businesses.

In 2001, ABB Australia closed its large power transformer production facility (greater than 25 MVA) and in 2004 ceased Australian manufacture of all power transformers other than ratings up to around 10MVA in Western Australia. In November 2012, Alstom announced the closure of its Australian power transformer manufacturing operations.

There are two other Australian manufacturers of power transformers, Ampcontrol and Tyree Transformers. Ampcontrol started manufacturing power transformers primarily to support mining activity, but is now also looking to supply power utilities. Tyree Transformers started manufacturing distribution transformers in the mid 1980's, but has more recently started manufacturing smaller power transformers. It is the second largest Australian manufacturer of distribution transformers after Wilson Transformers. Ampcontrol and Tyree Transformers support the application by Wilson Transformers and provided information to assist Wilson Transformers to prepare its application.

Wilson Transformers stated that it is now the largest Australian manufacturer of power transformers.

There are a number of manufacturers of small transformers in Australia, but these do not fall within the description of the goods.

5.2 Production process

Power transformers are custom designed capital goods that are engineered to order and are manufactured to the specifications of the customer. Their design and manufacture requires long lead times and they are typically sold through a tender process.

When a customer advertises a request for tender, manufacturers of power transformers will then bid on the project and confirm their ability to meet the specifications and required time line. Wilson Transformers stated that development

of a bid typically takes three to six weeks and involves a significant degree of engineering input.

When Wilson Transformers wins a tender it prepares a detailed design model involving electrical, mechanical and control design issues. Typically, there are many design options available to meet the customer specifications and in recent times customers have been involved in this process by way of design review. This process may take several weeks. When complete production is scheduled and required raw materials are ordered.

The steel core. Wilson Transformers maintains coil stocks of electrical steel in standard widths. Special widths or volume requirements are ordered to contract. The coils of thin electrical steel in various widths are cut into shaped laminations by a computerized shearing machine to form the legs and yokes of the core. Laminations are carefully stacked either by hand or machine so as to not damage the electrical properties of the laminations. Bundles of laminations are stacked together to form legs and yokes. In a typical three phase core form transformer there will be three main legs and bottom and top yokes.

Windings. The conducting material used for windings is typically specially purchased to the required dimensions and length for each power transformer. They are manufactured in accordance with the electrical design and produce the coils through which the electricity flows. They are formed by winding conductors of insulated copper wire over a cylindrical framework, typically by hand. The conductor is typically purchased already wrapped and various cylinders, sticks and spacers are inserted between turns of conductors. Depending on the type, voltage and winding current of a power transformer, different types of conductor and patterns of winding will be used. Power transformers can have many windings on each leg for example Low Voltage, Medium Voltage, High Voltage and Tapping.

Frame. A frame is fabricated from hot-rolled, low carbon steel or non-magnetic steel plates that are welded together to support the core, windings and other internal parts of the power transformer. Sometimes frame shunts are added to minimise the stray flux and losses in the frame.

Assembly. In the internal assembly process, the windings are pre-dried and adjusted to length and then placed over the legs of the core. The top yoke is then inserted, the core and windings secured together and further insulation, cleats, leads and tap-changer added (for in tank style) to form the active part of the power transformer. On load tap changers switch between the various taps of the windings of the power transformer under load conditions to maintain the desired output voltages. High quality tap changers are typically made in Sweden and Germany; no substitutable product is manufactured in Australia. Sometimes off-circuit tap selectors rather than on load tap changers are used.

Drying. The active part of the power transformer is dried in a vapour phase drying chamber to remove the moisture in the insulation. This process reduces the moisture content of the transformer insulation from the approximately 8% to the less than 0.5% required for the final product.

Tank manufacture. A transformer tank is fabricated from hot-rolled, low carbon steel plates that are welded together. Often internal wall shunts, made of electrical steel, are incorporated to reduce stray flux and losses in the tank walls. The interior is usually coated with epoxy and the exterior coated with a high performance paint system due to the long life expectancy of the product. Construction of the tank must be completed before drying of the active part is complete so that the windings and insulation parts do not start to reabsorb moisture.

Tanking. After drying, the windings are compressed, the active part lowered into the tank and the tank top attached by bolting or welding. External style tap-changers are fitted during this process. A vacuum is applied to the tank to remove surface moisture and the tank is filled under vacuum with hot processed transformer oil.

Final assembly. All components such as turrets, bushings, the cooling system (radiators, pumps and fans), controls, indicators and conservator are added. Bushings connect the external power cables through the tank wall or lid to the internal windings of the power transformer. They are typically imported from Sweden, Germany, Switzerland or Japan; no substitutable product is manufactured in Australia.

Test. Testing is performed to ensure the accuracy of voltage ratios, measure electrical losses and impedances, verify power ratings, and measure sound levels and partial discharge levels. High voltage tests are performed to simulate certain events that may affect the power transformer, including lightning strikes and over voltages (voltages that are above the operating conditions and up to the design limits).

If a power transformer fails testing, it may be necessary to drain oil, disassemble and rectify the problem. The power transformer is then re-assembled and re-tested. If the power transformer passes testing, the oil is drained, the external components are disassembled for shipment and the power transformer is delivered to site (or put into storage if the site is not ready). When on-site, the external components are re-assembled and pre-handover testing is undertaken. Smaller power transformers may be delivered complete.

5.3 Capacity, employment and annual turnover

Capacity, measured in MVA, increased in 2009-10 following a plant upgrade and was 10,400 MVA in 2012-13, although this could not be achieved based on current reduced employment numbers.

Wilson Transformers employs [REDACTED] people in the engineering, production, installation and sale of power transformers.

The turnover of the PBU was \$[REDACTED] million in 2010-11, \$[REDACTED] million in 2011-12 and \$[REDACTED] million in 2012-13. The turnover of the Wilson Transformers in this period was \$[REDACTED] million, \$[REDACTED] million and \$[REDACTED] million respectively.

6 AUSTRALIAN MARKET

6.1 Introduction

The Australian market is supplied by Wilson Transformers, other Australian producers and imports from a number of countries. The ABB Group, Alstom, Siemens and others manufacture power transformers in a number of plants around the world.

6.2 Market structure

The electricity network involves the generation, transmission, distribution and sale of electricity. Power transformers are required at various points in this network.

Power generators

Power is generated by numerous sources, including power stations, hydro-electric schemes, wind farms and solar farms. Power is typically generated at 5 to 30 kV, but transmitted at very high voltages (at reduced current) to reduce costs and losses. Power transformers are used to increase the voltage and proportionately reduce the amperage. These power transformers are known as step-up transformers and can have very large power ratings, often 100 to 600 MVA.

The power transmission network

Once generated, power must be transmitted to the location where demand exists. At each point where power is transferred between electrical systems the electricity passes through a power transformer. The major power transmission companies in Australia are outlined below.

- TransGrid is a state government owned corporation which owns, operates and manages the NSW high voltage electricity transmission network.
- SP AusNet is owned by Singapore Power and operates the Victorian electricity transmission network, carrying electricity from power stations to electricity distributors across all of Victoria.
- Powerlink is a state government owned corporation that owns, develops, operates and maintains Queensland's high-voltage electricity transmission network.
- ElectraNet operates the high-voltage electricity transmission infrastructure in South Australia and is owned by a consortium of companies.
- Western Power is a state government owned corporation that maintains and operates the electricity network in the south west corner of Western Australia.
- Transend Networks is the owner and operator of the electricity transmission system in Tasmania.

The power distribution network

Transmission of electricity usually occurs at 66 to 500 kV, but distribution is made at below 66 kV. Power transformers that take high transmission voltages and convert them to lower voltages suitable for distribution are known as step-down transformers.

There are numerous power transformers in a distribution network. As noted in section 4.1, distribution transformers are the last point of connection to a residential and often commercial consumer in the distribution network. The major power distribution companies in Australia are outlined below.

- Ausgrid is a state government owned company, that owns and operates the electrical distribution networks in Sydney, Central Coast, Hunter and Newcastle regions of New South Wales.
- Endeavour Energy is a state government owned company that owns and operates the electrical distribution networks in Western Sydney, the Southern Highlands and the Illawarra regions of New South Wales.
- Essential Energy is a state government owned company that owns and operates the electrical distribution networks in regional New South Wales, covering about 95% of the state.
- CitiPower and Powercor are electricity distributors that manage the poles, wires and equipment that deliver electricity to homes and businesses in Melbourne and through Central and Western Victoria. The Cheung Kong group (listed on the Hong Kong Stock Exchange) owns 51% CitiPower and Powercor, with the balance owned by Spark Infrastructure (listed on the Australian Stock Exchange).
- SP AusNet is a distributor as well as a transmission company, distributing electricity to customers across Eastern Victoria.
- United Energy distributes electricity to customers across East and South East Melbourne and the Mornington Peninsula. The DUET Group owns 66% of United Energy, with Singapore Power holding the remaining shares.
- ENERGEX is a state government owned company that distributes electricity in South East Queensland.
- Ergon Energy is a state government owned company that distributes electricity in regional Queensland.
- SA Power Networks is the operator of the South Australian electricity distribution network. It has the same ownership structure as CitiPower and Powercor.
- Western Power is a distributor as well as a transmission company, distributing electricity to customers in South West Western Australia.
- Aurora manages, develops and operates the Tasmanian electricity distribution system. After 1 January 2014 Aurora's distribution business will be merged with Transend Networks to form a new network company.
- ActewAGL Distribution is owned equally by ACTEW Corporation and SPI (Australia) and distributes electricity in the ACT. ACTEW Corporation is owned by the ACT Government.
- Power & Water Corporation is owned by the NT Government and distributes electricity in parts of the Northern Territory.

Retailers

Retailers buy electricity from distributors and sell it to customers. In some cases the retailer is part of a distribution company. Power transformers are not used in the retail network, although some retailers own generating facilities.

End users

Typically end users do not require power transformers. However, large end users such as heavy industry and resource projects often require power transformers. These end users may negotiate directly with distributors rather than purchase from retailers.

6.3 Market and demand

Wilson Transformers stated that three or four years ago its order book was out two years, but today it is [REDACTED]. It also stated that 20 years ago there may have been five or six bidders for a tender, but today there may be 20. Wilson Transformers stated that price is the biggest influence on tender assessment (given all other specifications are satisfied) and that the current trend is to have several rounds to discuss pricing, with bidders asked to submit a "best and final offer".

Wilson Transformers stated that importers may argue that there is more competition because there are more players in the market, but it argues that importers are submitting unfair and unsustainable prices.

We asked Wilson Transformers if the power transformers in the Australian electricity grid were aging, given that the expected life of a power transformer was 40 years. It stated that many power transformers had been supplied recently, but there were still a lot of old power transformers in the grid. About 40% of Ausgrid's power transformers had been supplied in the last 10 years and in the case of Transend Networks many power transformers had been supplied in the last 20 years. Wilson Transformers stated that the Victorian network contained a higher proportion of older power transformers.

Wilson Transformers stated that the demand for electricity in Australia has fallen in the past few years. The fall in demand has occurred in all states but has been particularly pronounced in NSW. Wilson Transformers provided a number of possible explanations for this fall in demand:

- changes in weather patterns;
- increased implementation of off-grid generation including photo voltaic and solar hot water;
- shutdowns of large industrial facilities like blast furnaces and refineries;
- shutdowns of smaller industrial facilities;
- reduced consumption due to price increases; and
- reduced demand from the mining sector.

Wilson Transformers claimed that traditionally power generation, transmission and distribution provided over 80% of power transformer market demand, but this fell during the period of the recent resource boom.

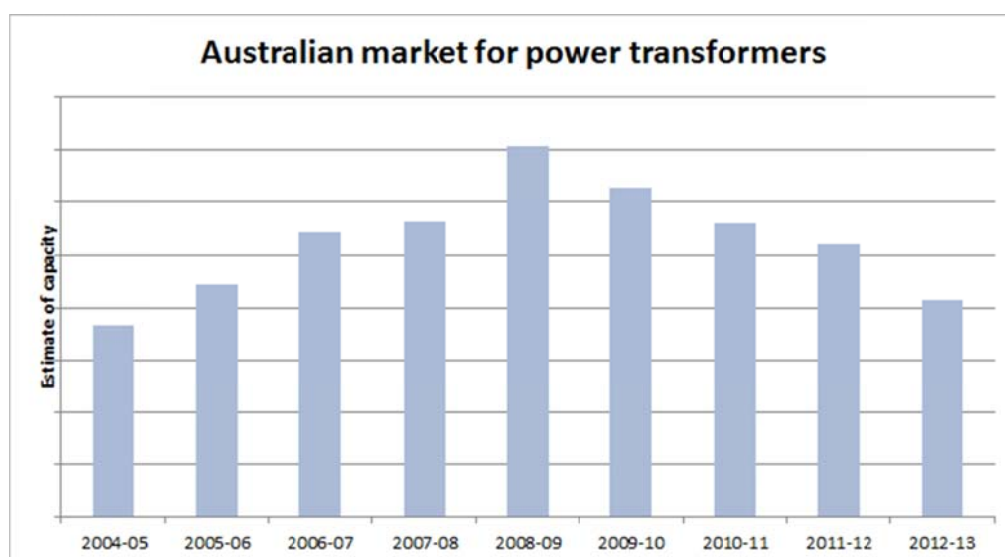
Wilson Transformers stated that the service side of its business had increased.

6.4 Market size

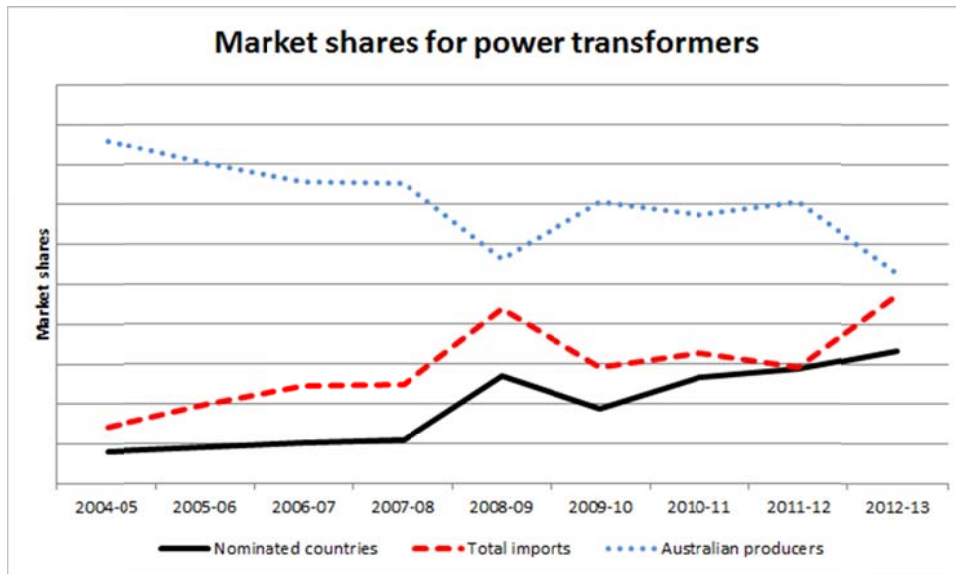
The Commission considered how to measure the size of the Australian market in its consideration report. A power transformer may be 10 MVA and weigh 20 to 25 tonnes or over 500 MVA and weigh over 200 tonnes. The Commission considered that capacity rather than number of units is the most appropriate measure of the size of the Australian market.

Wilson Transformers considers that dollars as well as capacity (MVA) is also a good measure of market size. A power transformer may be auto wound or double wound, and capacity can be measured under ONAN, ONAF or ODAF conditions. These factors can have a significant influence on the cost, and output capacity. As import statistics only record value and quantity Wilson Transformers considers value as the best measure. This issue will be further considered during the investigation.

The size of the Australian market, based on information submitted by Wilson Transformers in its application, is illustrated in the following chart.



Movements in market shares are illustrated in the following chart.



Our assessment of the size of the Australian market and market shares will be reviewed when information is provided by importers and exporters.

7 SALES AND COSTS

7.1 Background

Wilson Transformers stated that there are a number of industry databases that its marketing department scans to get leads on future power transformer requirements. It claimed that it submits tenders for about 90% of available jobs.

In view of the long lead times for producing power transformers, progress payments are sometimes required for payment milestones. The following are examples of payment milestones:

- 5% on receipt of purchase order;
- 5% on submission of preliminary contract documentation;
- 10% on completion of design review;
- 30% on receipt of copper and core steel;
- 40% on delivery to site or store; and
- 10% on practical completion.

The first three or four payment milestones may be combined to reduce the number of progress payments claims.

Each power transformer has electrical, mechanical and control design components. Where a contract involves the supply of a number of power transformers, Wilson Transformers' company policy is to [REDACTED]

[REDACTED] [design expense policy deleted]

7.2 Collection of revenues and costs

Typically a contract involves the design, manufacture, installation and commissioning of a power transformer. However, there are variations such as a customer requiring the power transformer to be manufactured, but installed at a later date - Wilson Transformers advised that it has about [REDACTED] power transformers that are in storage, either at the customers' premises or in independent warehouses (which the customers pay for). [REDACTED]

[REDACTED] Wilson Transformers identifies four points in the progress of a job:

- ex-works;
- freight;
- installation and;
- closure.

When a power transformer is at the ex-works stage, that part of the job is closed and revenues and costs are taken to the profit and loss account of the PBU. When the power transformer is installed and commissioned, installation revenues and costs are charged to the profit and loss account for services, while freight and closure revenues and costs are charged to the profit and loss account of the PBU.

[Number of customers receiving discounts deleted] Any revenue from progress payments prior to ex-work stage is recorded in the balance sheet.

- core cut and build;
- winding;
- tank and frame weld;
- painting;
- assembly;
- tanking;
- testing; and
- finishing.

Labour and burden are charged at standard rates determined at budget time each year (March or April). If a job is produced over more than one financial year, labour and burden costs are charged at different rates depending on when the work was performed. However, over and under recoveries are taken to the profit and loss account each month.

[Deleted internal WTC cost recording procedures]

[Deleted internal WTC cost recording procedures]

Each month Wilson Transformers prepares a Glen Waverley output report that records the costs for each job closed during the month. The output report also records other costs related to specific jobs, such as freight revenue and costs, storage costs and contract price adjustments. The monthly output report also records summary costs for gains and losses on installation, project closure costs and purchase price variances.

7.3 Verification to financial accounts

Prior to the meeting, we requested that Wilson Transformers provided information supporting revenues and costs for four selected jobs. Wilson Transformers provided the following documents:

- a project costing analysis for the four jobs (**confidential attachment VER 1**); and
- for each job (these documents are at **confidential attachments VER 2 to 5**):
 - a summary calculating ex-works value and gross margin;
 - invoices and evidence of payment;
 - production detail report at ex-works;
 - an intermediate report identifying labour and burden by production process and each individual raw material cost by analysis code;
 - a final cost report;
 - relevant monthly output report for the PBU; and
 - monthly and year to date profit and loss reports for the various business units.

We verified revenue from the ex-works summaries the output report and costs from the project detail reports, through the intermediate reports to the final costing reports and to the output reports for the relevant months. We verified each output report to the PBU profit and loss statement for the relevant month.

Only one of the four jobs had been completely closed. Ex-works stage was reached in October 2012, installation closed in March 2013 and the job was closed in May 2013. Wilson Transformers provided the services output report and profit and loss statement for March 2013 (**confidential attachment VER 6**). We verified the installation revenues and costs from the project costing analysis to the relevant job in the output report and total revenue from the output report to the profit and loss statement.

We verified freight and closure revenue from the project costing analysis to the May 2013 PBU output report. Wilson Transformers provided journals and general ledger reports that enabled us to verify these costs (**confidential attachment VER 7**).

Wilson Transformers also provided a production detail report after the job was closed (**confidential attachment VER 8**) and we were able to verify total costs from this report to costs in the October 2012 and May 2013 PBU profit and loss accounts.

Wilson Transformers provided details of the PBU output reports (**confidential attachment VER 9**) and profit and loss statements for the various business units (**confidential attachment VER 10**) for 2012-13. We verified revenues and costs in the output reports provided above to the details for 2012-13 and the total revenue

and costs from this total output report to the PBU profit and loss statement for 2012-13. We then verified the profit and loss statements for the various business units to the Wilson Group profit and loss statement for 2012-13.

Wilson Transformers 2012-13 audited consolidated profit and loss statement is not yet available. It provided its 2011-12 profit and loss statement for the Wilson Group and the various business units, spreadsheets identifying revenue from joint ventures and other sources and its 2011-12 audited profit and loss statement. These documents are at **confidential attachment VER 11**. We are satisfied revenues and costs for power transformers can be reconciled to Wilson Transformers' consolidated profit and loss account.

7.4 Verification to source documents

Wilson Transformers stated that any cost item from the product detail report could be traced to source documents.

Control equipment

We selected an item of control equipment for one of the jobs. Wilson Transformers provided an inventory summary, purchase order and supplier invoice to support the cost. As this equipment was purchased from a related company, we asked Wilson Transformers if the price was an arm's length price. Wilson Transformers provided a price list identifying the list price, resellers' price and Wilson Transformers price. Supporting documents are at **confidential attachment VER 12**. We noted that control equipment represented less than [REDACTED] [Deleted actual percentage] of the material cost of this power transformer. We are satisfied that the price is an arm's length price.

Transformer oil

Wilson Transformers provided an inventory summary, purchase order and supplier invoice to support the cost of transformer oil. Supporting documents are at **confidential attachment VER 13**.

Copper

Wilson Transformers provided an inventory summary, purchase order and supplier invoice to support the cost of copper. Supporting documents are at **confidential attachment VER 14**.

Bushings

Wilson Transformers provided an inventory summary, purchase order and supplier invoice to support the cost of bushings. Supporting documents are at **confidential attachment VER 15**.

Core steel

Wilson Transformers provided an inventory summary, purchase order and supplier invoice to support the cost of core steel. Supporting documents are at **confidential attachment VER 16**.

Labour and burden

As noted previously, Wilson Transformers uses standard costs for labour and burden, with over and under recoveries taken to the profit and loss account each month. Wilson Transformers estimates the number of productive hours per year taking account of the number of employees, public holidays, RDOs, annual leave, sick leave and overtime. This is applied to budgeted labour expenses and burden to arrive at hourly labour and burden recovery rates. Burden includes all costs of running the factory, including indirect labour. Supporting documents are at **confidential attachment VER 17**.

7.5 Conclusion

We have verified the cost and sales information provided by Wilson Transformers for power transformers. We are satisfied the data is relevant and accurate, and suitable for the purposes of injury analysis.

8 ECONOMIC CONDITION OF THE INDUSTRY

8.1 Introduction

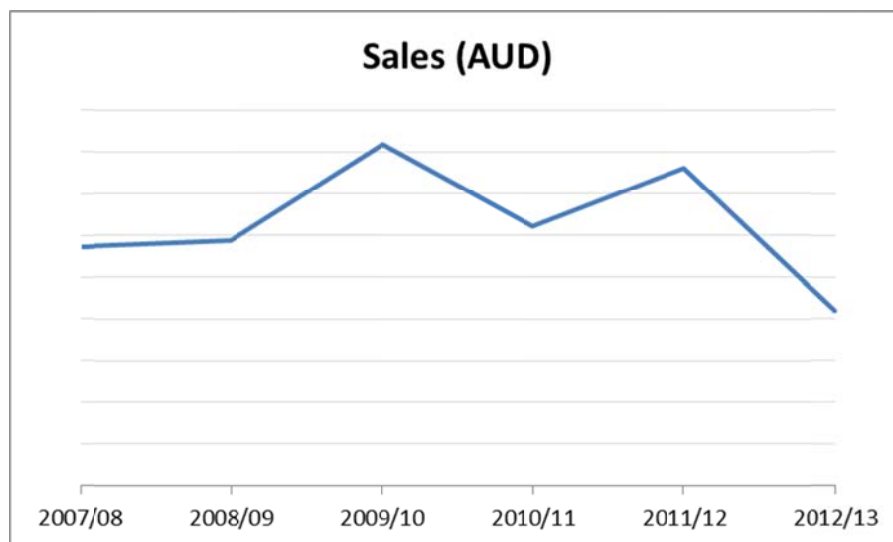
Wilson Transformers estimates that injury from exports of power transformers from China, Indonesia, Korea, Taiwan, Thailand and Vietnam commenced with a significant rise in imports in 2007-08. Wilson Transformers claims the industry has been injured through:

- loss of sales volume;
- reduced market share;
- price undercutting;
- price suppression;
- reduced revenues;
- reduced profits;
- reduced profitability;
- reduced orders on hand;
- reduced capacity utilisation; and
- reduced employment.

8.2 Volume effects

8.2.1 Sales volume

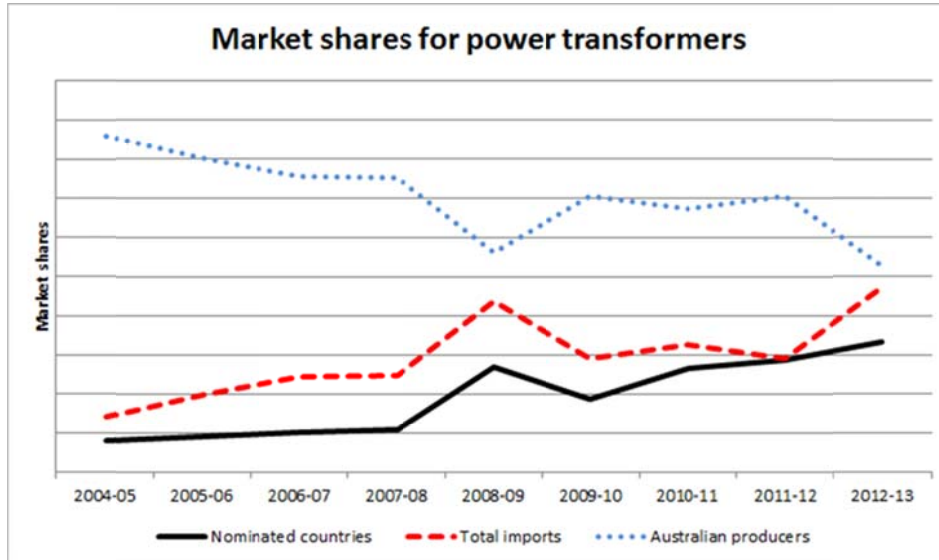
Wilson Transformers sales volume over the injury analysis period is illustrated in the following chart.



Wilson Transformers' sales volume fell in 2010-11, rose in 2011-12, and fell again in 2012-13. The volume achieved in 2012-13 was lower than that achieved in the previous four years. We consider that Wilson Transformers has suffered injury in the form of reduced sales volume.

8.2.2 Market shares

We have estimated market shares using data from Customs and Border Protection's import database and information verified during the visit. Movements in market shares are illustrated in the following chart.

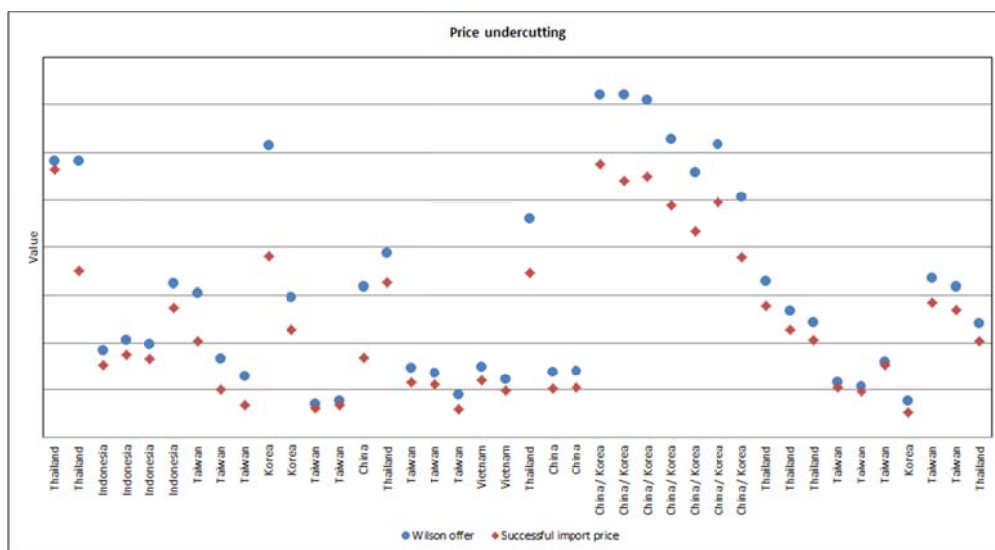


The Australian industry's market share fell in 2008-09 but recovered in 2009-10 to subsequently fall again in 2012-13. We consider that Australian industry has suffered injury in the form of reduced market share.

8.3 Price effects

8.3.1 Price undercutting

Price undercutting occurs when imported product is sold at a price below that of the Australian manufactured product. In its application, Wilson Transformers provided price comparisons for each unsuccessful tender since mid-2008 as evidence of price undercutting. This is illustrated in the following graph.



On the basis of this information, we consider that Wilson Transformers has suffered injury in the form of price undercutting.

8.3.2 Price Suppression

Price suppression occurs when price increases for the applicant's product, which otherwise would have occurred, have been prevented. An indicator of price suppression may be the margin between revenues and costs.

Wilson Transformers provided evidence of price suppression in its application by analysing tender margins over time through the calculation of average sales dollar per MVA over time.

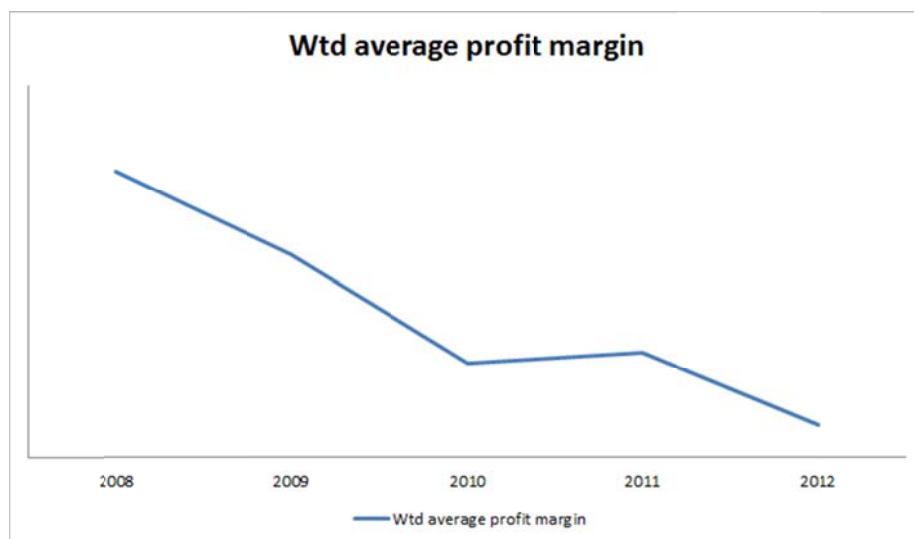
This analysis indicates that for tenders won, its margins fell by almost 15 percentage points between 2008-09 and 2010-11.

Wilson Transformers also analysed sales dollars per MVA over the last nine years. Sales dollars per MVA increased rapidly from 2004-05 to 2006-07, and then remained relatively stable until 2011-13. Sales dollar per MVA fell significantly in 2012-13.

On the basis of this information we consider that Wilson Transformers has suffered injury in the form of price suppression.

8.4 Profit

Wilson Transformers' profit margins for the period 2008 to 2012 are illustrated in the following chart.



The weighted average profit margin on the applicant's unsuccessful tender offers fell by [redacted] [Deleted the actual figure] percentage points from 2008 to 2012. We consider that Wilson Transformers have suffered injury in the form of reduced profit.

8.5 Forecast performance

Wilson Transformers stated that because of the long lead times for the design and production of power transformers, it is possible to forecast revenues and profits with reasonable accuracy. The original budget for 2012-13 forecast revenue of \$[REDACTED] million and a profit before tax of \$[REDACTED] million. During the preparation of the 2013-14 budget, the forecast revenue was revised to \$[REDACTED] million and a [REDACTED] result of \$[REDACTED] million was forecast. For 2013-14, revenue was forecast to be \$[REDACTED] million with a [REDACTED] result of \$[REDACTED] million. The actual results achieved in 2012-13 were revenue of \$[REDACTED] million and a [REDACTED] result of \$[REDACTED] million. Wilson Transformers now claims that revenue forecast for 2013-14 will be lower than expected [REDACTED]. Supporting documents are at confidential attachment EC 1.

8.6 Other economic factors

Wilson Transformers completed an Appendix A7 for power transformers from 2006-07 to 2012-13.

Assets

The value of assets in the production of power transformers has risen since 2009-10. This results from a major plant expansion undertaken by Wilson Transformers in the same period, as part of Project BIG (Breathe, Improve and Grow). The effect of this project was to provide an increase in the production capacity of the PBU facility at Glen Waverley by 40%.

Capital investment

Capital investment also increased significantly in 2009-10 as a result of Project BIG. It has steadily fallen since the commencement of the project in 2009-10.

Research and development (R&D) expenditure

R&D expenditure was relatively stable throughout the period examined. Slight increases occurred in 2008-09 and 2009-10 in line with Project BIG.

Revenue

Revenue rose in 2009-10 but has subsequently fluctuated, with falls in 2010-11 and 2012-13.

Return on investment

Return on income, measured as earnings before interest and tax over total assets, fell consistently and significantly over the period 2009-10 to 2011-12.

Capacity

Capacity, measured in MVA, has steadily risen since 2009-10 with the commencement of Project BIG. Capacity in 2012-13 is now over 40% more than prior to 2009-10.

Capacity utilisation

Capacity utilisation has steadily fallen since 2009-10. Wilson Transformers considers that the reduced number and value of orders received is likely to result in significant underutilised production capability from 2012-13 onwards.

Wilson Transformers advised that as a result of low orders on hand, it was required to reduce staff levels, which impacts overall capacity. During verification, Wilson Transformers provided a graph which outlined its capacity when fully staffed, its capacity at current staffing levels and its ongoing orders on hand. This illustrated that Wilson Transformers production is below its capacity at current staff levels and significantly below the capacity of the PBU facility.

Employment

As outlined above, Wilson Transformers employment rose between 2006-07 to 2009-10 but has subsequently fallen, with employment in 2012-13 the lowest in five years.

Productivity

Productivity remained relatively stable over the injury review period, with a slight decline in 2009-10 to 2011-12.

Wages

The wage bill increased in recent years. This is indicative of a rise in average wage rather than an increase in employment.

8.7 Conclusion

The data indicates that Wilson Transformers suffered injury through:

- loss of sales volume;
- reduced market share;
- price undercutting;
- price suppression;
- reduced revenues;
- reduced profits;
- reduced profitability;
- reduced orders on hand;
- reduced capacity utilisation; and
- reduced employment.

9 CAUSATION

9.1 Pricing

Wilson Transformers outlined that most sales of power transformers are initiated by a tender process.

Wilson Transformers outlined that there are a number of factors that can impact the initial offer price. The most significant are the technical specifications of the unit required, for example, the capacity, voltage, tapping range, loss costs, specific site or contract requirements and testing requirements.

Wilson Transformers noted that due to the significant increase in competition in recent years it is required to place an initial bid with low margins in order to remain competitive during the tender process.

Wilson Transformers outlined that it is now customary for purchasers to provide bidders with feedback on their initial bid and to do a “best and final offer” round. Wilson Transformers state that at this stage of the process they are under considerable pressure to lower prices in order to remain in contention. This forms the basis of Wilson Transformers’ claims of injury resulting from price undercutting and price suppression.

Prior to verification, the Commission requested that Wilson Transformers provide evidence of the link between the claimed injury and the alleged dumped imports from the countries under consideration. Wilson Transformers provided evidence of price pressure for both successful and unsuccessful tenders in order to establish the causal link between dumped imports and the injury suffered as a result of price undercutting and price suppression.

9.1.1 Unsuccessful tenders – price undercutting

Wilson Transformers provided the Commission with a list of lost tender bids during the injury analysis period. Wilson Transformers provided evidence of its tender offer/s and the price offered by the successful supplier on the basis of feedback received from the purchaser.

During verification, Wilson Transformers provided the Commission with evidence of feedback received on a selection of its lost tender bids. This evidence included direct emails from the purchaser and “Lost Business Reports” compiled by a consultant engaged by Wilson Transformers to act on its behalf.

A summary of the information provided in relation to the selected lost tenders is outlined in the table below:

Customer	Reference	Feedback provided

[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

[Deleted information is confidential to tenders and related feedback]

This information supports the applicant's contention that while tenders are assessed on a number of criteria, price is often the determining factor. It also supports the contention that the injury caused by price undercutting results from imports of the goods at dumped prices.

This causative evidence of price undercutting forms confidential attachment INJ 1.

9.1.2 Successful tenders – price suppression

During verification, we were provided evidence of the applicant reducing its price in order to win tenders as a result of pressure from purchasers to compete with imported products from the countries under consideration.

The first was in relation to a contract with [REDACTED] [Customer name deleted] (reference P1007), whereby Wilson Transformers reduced its price by approximately [REDACTED] [Deleted % price reduction] in order to secure the contract. Offers were made in three rounds, as follows:

	Initial offer	Second offer	Contract price
Unit	[REDACTED]	[REDACTED]	[REDACTED]
Installation	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]

[Deleted contract prices]

The contract price included a milestone payment of [REDACTED] [Deleted value of milestone payment] as incentive to deliver on time. Wilson Transformers indicated that it negotiated this as a way to lower the contract price so that they were competitive with overseas suppliers.

Wilson Transformers provided evidence of its offers, a file note of a telephone conversation with [REDACTED] [Customer name deleted] regarding a reduction in price, email correspondence negotiating the milestone payments and its subsequent contract for supply.

The second example was in relation to a tender for supply of two power transformers to [REDACTED] [Customer name deleted] (P1248). Wilson Transformers' initial offer of [REDACTED] [price deleted] was reduced by approximately [REDACTED] [price reduction percentage deleted] as a result feedback received by phone. Wilson Transformers provided the costing sheet that forms the basis for its initial offer and email correspondence of its reduced price.

The third example was in relation for a period contract with [REDACTED] [customer name deleted] for a number of different power transformers. Wilson Transformers provided a spreadsheet of initial offers made on 24 April 2012 and revised offers made on 16 October 2012. These show a price reduction in the range of [REDACTED] [price reduction percentage deleted] The spreadsheet also provides an indicative offer for price made by the applicant's competitors.

The final example was in relation to a tender for four units of two power transformers by [REDACTED] [customer name deleted] (reference P1301). Here the purchaser sought reductions on both types of power transformers. In response, Wilson Transformers amended its prices as follows:

Unit specifications		[REDACTED]	[REDACTED]
Initial offer	Unit	[REDACTED]	[REDACTED]
	Installation	[REDACTED]	[REDACTED]
	Offloading	[REDACTED]	[REDACTED]
	Total	[REDACTED]	[REDACTED]
Contract price	Unit	[REDACTED]	[REDACTED]
	Installation	[REDACTED]	[REDACTED]
	Offloading	[REDACTED]	[REDACTED]
	Total	[REDACTED]	[REDACTED]
Price reduction (%)		[REDACTED]	[REDACTED]

[Tender prices and price reductions deleted]

Wilson Transformers provided an email from [REDACTED] [customer name deleted] as evidence of the reduction sought. It also provided evidence of its initial offer, calculations of the price reduction, subsequent offer and purchase order.

This information supports the applicant's contention that it is reducing prices as requested by purchasers in order to compete with overseas imports. Wilson Transformers indicated that in some instances it was reducing prices so that no margin was achievable in order to win the tender.

This information further supports the applicant's contention that while tenders are assessed on a number of criteria, price is often the determining factor. It also supports the contention that the injury caused by price suppression results from having to compete with imports of the goods at dumped prices.

The evidence of price suppression forms **confidential attachment INJ 2**.

9.2 Other possible causes of injury

Wilson Transformers outlined that the Australian demand for power transformers has decreased due to reduced spending by utilities as a result of:

- utilities having undertaken large renewal of the electricity networks over the past decade, which has reduced the demand for continuing renewal;
- the decline in period contracts with purchasers and the reduced demand for supply resulting from these period contracts;
- the increase in domestic solar power has reduced the demand for electricity ; and
- demands by new State Governments for reductions in capital expenditure by power utilities.

Similarly, the downturn in industries such as mining, oil and gas production has seen a reduction in demand of the industrial market.

The high Australian dollar during the investigation period also limited the applicant's opportunities in export markets.

9.3 Conclusion

We consider that the evidence provided by Wilson Transformers supports its claim of price injury as a result of dumped imports. However, these claims will need to be further examined during visits to end users and importers. The issue of causation will be further discussed in the statement of essential facts, or if appropriate, in a preliminary affirmative determination.

10 BENCHMARKING

Wilson Transformers provided information to assist the Commission when examining costs submitted by exporters. It provided indices in the movement core steel prices since 2004. Prices increased steadily from 2004 to early 2009, but have fallen since to a little above the levels recorded in 2004. Supporting documents are at **confidential attachment BENCH 1**.

Wilson Transformers also provided information on copper conductor prices for copper strip, continuously transposed conductor and enamel covered wire. The price is the LME copper price plus a premium, which depends on the size of the wire. Premiums are typically in the range of [REDACTED] [manufacturing premiums deleted] per tonne. There are also premiums for small purchase quantities. Wilson Transformers stated that these premiums have not changed since [REDACTED] [period deleted]. Supporting documents are at **confidential attachment BENCH 2**.

11 UNSUPPRESSED SELLING PRICE

Unsuppressed selling price and non-injurious price issues are examined at an early stage of an investigation and, where possible and appropriate, preliminary examinations are made during the application consideration period for the purpose of assessing injury and causal link and therefore the appearance of reasonable grounds for the publication of a dumping duty notice.

Customs and Border Protection generally derives the non-injurious price by first establishing a price at which the applicant might reasonably sell its product in a market unaffected by dumping. This price is referred to as the unsuppressed selling price.

Customs and Border Protection's preferred approach to establishing unsuppressed selling prices observes the following hierarchy:

- industry selling prices at a time unaffected by dumping;
- constructed industry prices – industry cost to make and sell plus profit; or
- selling prices of un-dumped imports.

Having calculated the unsuppressed selling price, Customs and Border Protection then calculates a non-injurious price by deducting the costs incurred in getting the goods from the export free on board point (or another point if appropriate) to the relevant level of trade in Australia. The deductions normally include overseas freight, insurance, into-store costs and amounts for importer expenses and profit.

Wilson Transformers advised that it will provide a further submission on the unsuppressed selling price and injury in due course.

12 LIST OF ATTACHMENTS

Confidential attachment VER 1	Project costing analysis (4 jobs)
Confidential attachment VER 2	Detailed cost and revenue report (Job 1)
Confidential attachment VER 3	Detailed cost and revenue report (Job 2)
Confidential attachment VER 4	Detailed cost and revenue report (Job 3)
Confidential attachment VER 5	Detailed cost and revenue report (Job 4)
Confidential attachment VER 6	Services output report and profit and loss - March 2013
Confidential attachment VER 7	Freight and closure revenue
Confidential attachment VER 8	Production detail report (job closure)
Confidential attachment VER 9	PBU output reports
Confidential attachment VER 10	Profit and loss statements for each business unit
Confidential attachment VER 11	2011-12 profit and loss statements
Confidential attachment VER 12	Control equipment purchase documents
Confidential attachment VER 13	Transformer oil purchase documents
Confidential attachment VER 14	Copper purchase documents
Confidential attachment VER 15	Bushing purchase documents
Confidential attachment VER 16	Core steel purchase documents
Confidential attachment VER 17	Labour and burden costs documents
Confidential attachment EC 1	Forecast performance
Confidential attachment INJ 1	Evidence of price undercutting
Confidential attachment INJ 2	Evidence of price suppression
Confidential attachment BENCH 1	Core steel price benchmark information
Confidential attachment BENCH 2	Copper conductor price benchmark information