



## **Review of the aviation fuel markets in Jersey and Guernsey**

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## **Executive Overview**

This review of the supply of aviation fuel in Jersey and Guernsey was conducted by the Channel Islands Competition and Regulatory Authorities (CICRA) in response to a request from the Minister for Economic Development in Jersey and the Commerce and Employment Board in Guernsey<sup>1</sup>.

### *Background*

At the time of the review, FSCI (Fuel Supplies CI Limited) was the sole supplier of aviation fuel at Jersey and Guernsey airports. However since the beginning of September, there have been significant changes to the fuel supply arrangements at Jersey Airport.

Prior to this change, FSCI operated the airport fuel facilities at each airport, and was the single importer, retailer and distributor of aviation fuel in Jersey and Guernsey. Two grades of aviation fuel are used in the Channel Islands; Jet A1 (also known as kerosine/kerosene) used by jet or turbo-prop aircraft, and Avgas (also known as gasoline) used for private or light aircraft. The total annual size of the aviation fuel market is approximately 15.5m litres by volume and £11m by value. This level of demand for aviation fuel in the islands is significantly lower than many regional or international European airports. By way of contrast, it is also less than the annual volume of road fuel that might be delivered to a large motorway service station in the UK.

## **Key findings**

### *Prices and margins*

Channel Island aviation fuel prices, both for Jet A1 and Avgas, are substantially higher than in the UK, though less than the Isle of Man. Commercial airlines in both islands are able to negotiate supply agreements or special arrangements which give a significant discount to the advertised prices reflecting the volume of fuel they purchase. However, even these discounted prices remain substantially higher than equivalent prices in the UK and commercial airlines choose to refuel elsewhere as a result.

The margin between the headline retail price (also known as the Posted Airfield Price or PAP) and the wholesale price<sup>2</sup> has remained relatively stable since 2010. This review found no evidence of excessive margins or significant increases in the margin earned by FSCI based on prices actually paid over the period this analysis was conducted.

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<sup>1</sup> Note that there have now been major changes to the airport fuel supply arrangements in Jersey. Prior to the completion of the analysis for this report, Fuel Supplies CI Limited, wrote to its customers advising that it would no longer supply aviation fuel in Jersey from the end of September 2014. Jersey Airport has put in place another operator to secure the continuity of fuel supplies, in effect since 1 October.

<sup>2</sup> Platts NW Europe mid-CIF Jet A1 fuel price for jet fuel; NW Europe mid-CIF unleaded gasoline for Avgas

### *Market changes*

Historically both islands benefitted from a policy of cross-subsidy by the previous aviation fuel provider (Shell) which applied a common pricing policy across the airports it served regardless of the volumes sold or the cost. This contributed to higher volumes of aviation fuel sold in the Channel Islands during that period.

Lower volumes of sales contribute to higher fuel prices given the lack of economies of scale, and volumes of both the main Jet A1 fuel and Avgas have fallen significantly over the past ten years, as a result of a combination of higher prices and reduced demand. Avgas volumes are set to fall further with the withdrawal of commercial Trislander operations<sup>3</sup>.

### *Supply chain costs*

In the analysis of FSCI's supply chain costs, there is no evidence of excessive pricing by FSCI. Although FSCI (and Rubis, FSCI's parent company) has been less transparent in providing detailed cost information than we would have hoped, we found it was generally able to justify its costs.

The costs of supply in Jersey and Guernsey are higher than the costs of supply of fuel to the UK or mainland European destinations. This is reflected in higher prices as a consequence of supplying relatively small product volumes to the island markets. Factors contributing to this are that the supply chain is more complex in some respects, fixed costs and overheads are shared over a smaller volume of sales and there are some characteristics unique to the Channel Islands such as the need to use specialist vessels to deliver fuel.

Detailed analysis has revealed specific areas where costs are high – including the import, transportation and labour costs. Terminal throughput fees are also relatively high. There are further costs not accounted for in detail by FSCI and Rubis in the overall supply chain breakdown, equivalent to between 2 and 4 pence per litre (ppl). However, even if this were entirely attributed to higher margins, rather than undisclosed but appropriate expenses, we do not consider this would be sufficient to bring prices down to levels competitive with UK airports or to levels previously seen in the Channel Islands.

Our recommendations suggest areas where reductions in the fixed costs of storage, staff and capital costs might have a positive impact on the cost of fuel supplies.

### **Summary of Key Recommendations**

There is scope for the promotion of competition and access at stages of the supply chain, as well as potential changes to practices, subject to feasibility, safety and sustainability:

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<sup>3</sup> The majority of data was collected before Aurigny ceased its Jersey-Guernsey Trislander service.

- For airport fuel facilities, airport operators might consider requirements to allow third party access to fuel facilities on fair and reasonable terms in future lease or licensing arrangements.
- By reducing the operating hours and availability of fuel facilities, if this were practicable for commercial airlines, cost reduction in the price of fuel (at current volumes of demand) might be realised.
- Self service supply of Avgas might reduce costs to support the sustainability of Avgas supplies.
- Consideration should be given to establishing how the level of storage and throughput charges at Channel Islands fuel terminals might be reduced, since on comparative measures the charges appear high.

#### *Recent changes to fuel supply arrangements at Jersey airport*

Following discussions over the extension of its lease for the main fuel storage site at Jersey Airport, FSCI was not able to agree renewal terms with the airport before the expiry of its existing lease. Consequently, Jersey Airport has made interim arrangements for fuel supply. The equipment, moveable assets and facilities necessary for the provision of aviation fuel were purchased from FSCI by Jersey Airport. Arrangements were made with ATF Fuels<sup>4</sup>, which has a relationship with ASIG (Aircraft Services International Group) a major independent provider of airport services, to operate the airport fuel service and ensure a continuing supply of aviation fuel to customers. It is understood that this is an interim measure pending the outcome of a tender process for the future fuel supply arrangements at Jersey Airport.

CICRA notes the changes to the arrangements at Jersey Airport and would encourage Jersey Airport to ensure that additional fuel suppliers are able to access facilities on “FRAND” terms together with the introduction of competition for the fuel services market by putting airport fuel services out to tender to obtain best value for customers.

The recent sharp fall in oil prices should deliver a significant reduction in aviation fuel prices and it is important that this together with any benefits from the new arrangements at Jersey Airport are passed on to customers in the form of reduced aviation fuel prices.

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<sup>4</sup> ATF Fuels, [www.atffuels.com](http://www.atffuels.com), part of ATF Overseas Holdings Limited.

## **1. Introduction**

This review of the aviation fuel market in Jersey and Guernsey was conducted by the Channel Islands Competition and Regulatory Authorities (CICRA) in response to a request from the Minister for Economic Development in Jersey and the Commerce and Employment Board in Guernsey. The specific terms of reference are set out in Annex 1.

Aviation fuel supplies play a small but critical part in facilitating essential transport links supporting Jersey and Guernsey. As small island economies, both Jersey and Guernsey face additional costs of supply without the benefit of economies of scale or scope available in larger markets.

## **2. Background**

Over the period this market review was carried out, in both islands there was a single common supplier of aviation fuel at each airport, FSCI (Fuel Supplies CI Limited), a subsidiary of Rubis SCA, a privately owned French petro-chemical company. FSCI operated airport fuel facilities leased from each airport in Jersey and Guernsey, and is the single importer, retailer and distributor of aviation fuel. FSCI has since written to its customers advising that it would no longer supply aviation fuel in Jersey from the end of September 2014. Jersey Airport has put in place another operator to secure the continuity of fuel supplies, and this arrangement has been in effect since 1 October.

There are two grades of aviation fuel available in the Channel Islands. The main product is jet fuel, also referred to as Jet A1 or Kerosene. As its name indicates this is used by jet and turbo-prop aircraft (which provide most commercial flights to and from the Channel Islands and forms the substantial majority of the market by volume and value. Aviation gas also referred to as Avgas or Gasoline is a fuel similar to road petrol and is mainly used by private/light aircraft. Its most significant commercial use is for the Trislander aircraft operated by Aurigny and their retirement from service will significantly reduce the volume, hence value of the local Avgas market.

## **3. Fuel volumes and prices**

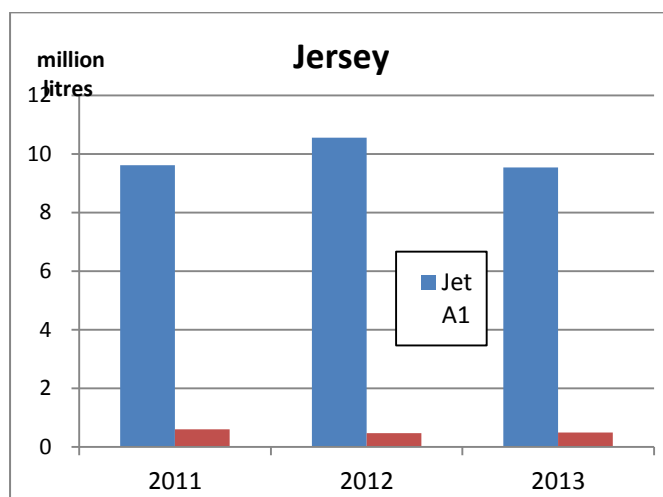
Throughout this report, fuel prices are quoted net of duty, tax and any other levies or royalties that may be added to the retail price. Aviation fuel in Jersey and Guernsey is exempt from duty, in Jersey it is exempt from General Sales Tax (GST) but sales in Jersey are subject to a charge of 0.25ppl levied by the airport authority (there is no GST or levy charged in Guernsey).

The headline retail price for aviation fuel is also referred to as the Posted Airfield Price or PAP. The prices set by FSCI for Jet A1 and Avgas were the same for both islands. However, buyers did not necessarily pay the headline retail price. Airlines and fixed base operators

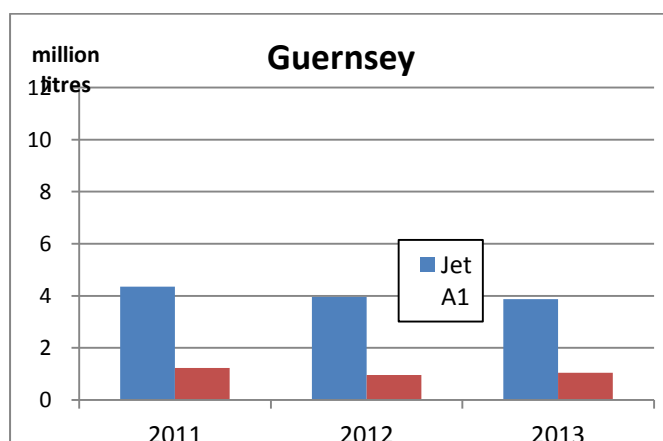
(FBOs)<sup>5</sup> using larger volumes of fuel are able to negotiate discounts and will pay lower prices for larger volumes or committing to minimum purchases. The wholesale price is determined by international energy market forces. Specialist reporters such as Platts<sup>6</sup> publish reference prices – and for the Channel Islands, Platts’ Jet A1 price for North West Europe is most relevant.

The aviation fuel market in the Channel Islands, as elsewhere, is dominated by Jet A1 fuel which accounts for almost 90% of the market by volume. After a period of decline, aviation fuel sales in both Jersey and Guernsey have been relatively stable for the last three years. In 2013, sales of Jet A1 and Avgas in the Channel Islands were approximately 14 million and 1.5 million litres respectively with a total value of roughly £11m per annum, £7m in Jersey, and £4m in Guernsey.

**Figure 1: Volume of aviation fuel supplied to Jersey: 2011-2013**



**Figure 2: Volumes of aviation fuel supplied to Guernsey: 2011-2013**



<sup>5</sup> A fixed-base operator (FBO) is a commercial airline granted the right by an airport to operate on the airport.

<sup>6</sup> Platts: <http://www.platts.com/> is a provider of energy, petrochemicals, metals and agriculture information, and a premier source of benchmark price assessments for commodity markets since 1909. Information on European fuel products markets can be found here: <http://www.platts.com/products/european-marketscan>

Until FSCI acquired the business, aviation fuel in both islands was supplied by Shell. For a number of years prior to 2009, Shell offered its larger commercial customers a common pricing approach across a range of aviation fuel supply locations. This arrangement benefitted smaller regional and local airports like those in the Channel Islands, which would normally be expected to have higher fuel prices than larger airports. This removed, or at least, substantially reduced the economic incentives for large purchasers to take the majority of fuel at larger regional airports. This had significant beneficial effects for the smaller airports, increasing the uplift of fuel locally, and enabling fixed costs to be shared across a larger volume thereby reducing the charges per litre needed to recover these costs. Respondents to the market study have shared with CICRA that up until that time, particularly for Avgas, prices for aviation fuel in Guernsey and Jersey were cheaper than the UK and France after taking account of VAT and duty refunds. This arrangement benefitted not only large commercial fuel purchasers, but also smaller users.

Since FSCI's acquisition of the Shell business in the Channel Islands, aviation fuel supply operations are no longer part of a large regional network and operate as stand alone businesses. As a consequence of this prices would have increased, relative to UK and European airports, to reflect the actual costs of supplying fuel locally.

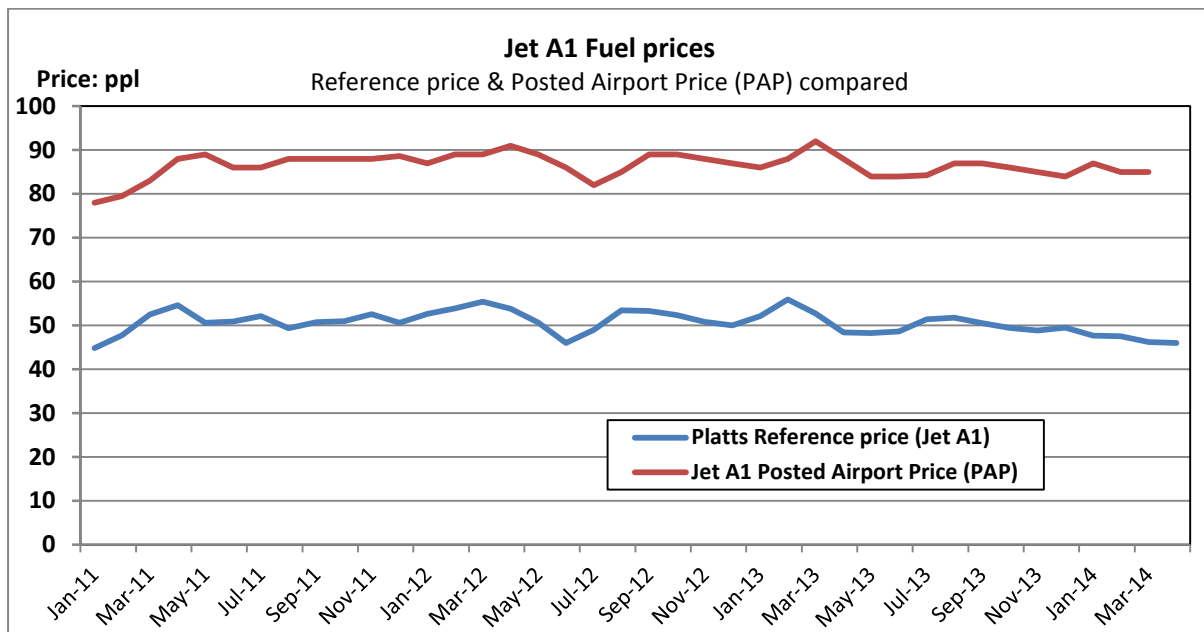
Overall, FSCI considers that competition in the aviation fuel market, and specifically the market for commercial Jet A1 fuel, is not inter-island between Jersey and Guernsey, but between the Channel Islands and airports elsewhere in the UK and mainland Europe. Higher Jet A1 fuel prices have led most of the commercial airlines to adopt a policy that encourages pilots to buy fuel where it is cheaper and if appropriate carry extra fuel (known as tankering) into Jersey and Guernsey to avoid their higher fuel prices unless it is necessary because of weather, payload or other restrictions. This is supported by evidence from the airlines themselves.

The charts below show that since 2011, the period for which we have gathered detailed information, the difference between the reference price for buying aviation fuel wholesale (the Platts reference price) and the PAP, has remained stable. This margin between the PAP and the Platts reference price covers the costs of fuel purchase and operation plus the supplier's profit margin. Figure 3 illustrates the extent of difference between the PAP and the Platts reference price for Jet A1 and it is apparent that the retail price tracks the movement in wholesale (reference) prices.

Noticeably, the market price in this period has also been relatively stable as increases in the US dollar (\$) denominated wholesale fuel price have been offset by a stronger pound (£) sterling. This has meant that the "pence per litre" price has remained relatively stable at around 50ppl throughout the period since January 2011.



**Figure 3: Jet A1 Retail Price vs Reference price (Platts Jet fuel, NW Europe)**



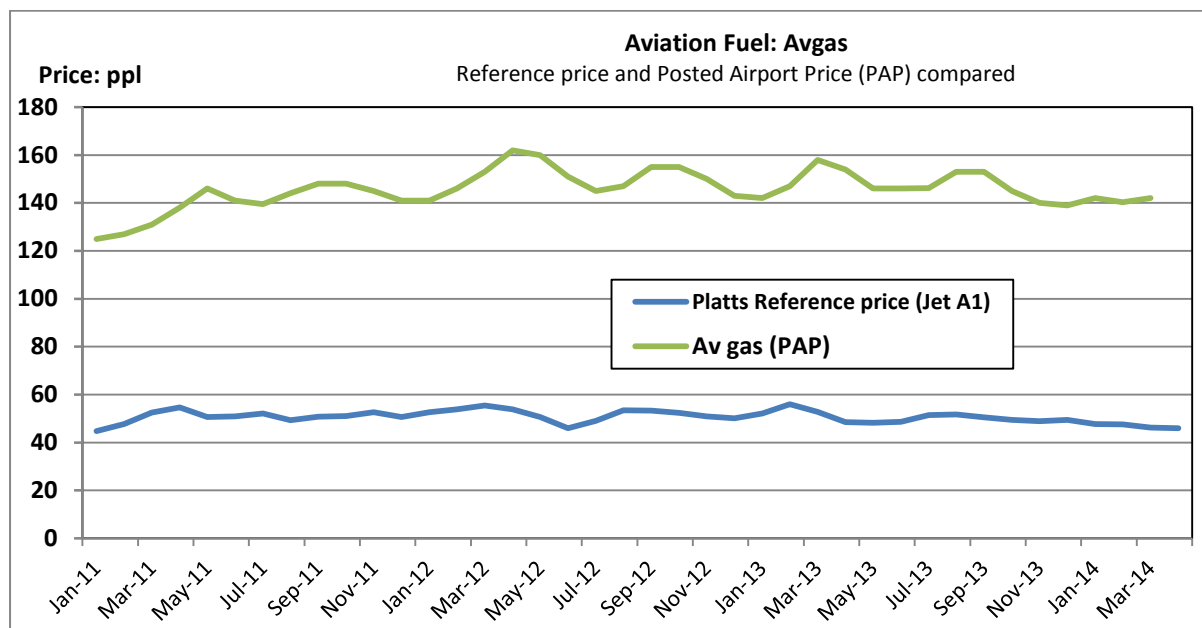
The margin between the retail and wholesale prices and the make up of the operation, transport and secondary distribution costs, is examined in the cost analysis section below. This focuses on the most up to date information available, for the period January – April 2014 in order to determine whether the margin is reasonable or if excessive profits are being recovered.

The picture for the Avgas market is similar but although widely used in private aviation, the overall demand for Avgas is small compared to Jet A1. It is no longer produced by the major UK refineries but is produced by a limited number of refineries in Europe. As a result, independent pricing information or benchmark prices are difficult to find. Given the small volumes and batch production, prices would be expected to be more volatile than for other fuels.

Fuel product prices are however closely correlated, and a comparison can be made against the same Platt’s reference price used for Jet A1. Based on specialist advice we estimate a typical wholesale Avgas price is about 1.9 times the Platts reference price plus a mark up of 10-12ppl for small volume purchases. This translates a reference price of 50ppl for Jet A1 into a basic wholesale price of 105-107ppl for Avgas.

Figure 4 compares the headline retail price (PAP) for Avgas with the Platts reference price for Jet A1. As expected, it shows the increased price volatility compared to Jet A1. The greater margin evident in the graph will also need to cover the higher input prices and cost of Avgas.

**Figure 4: Avgas retail price vs Platts reference market price**

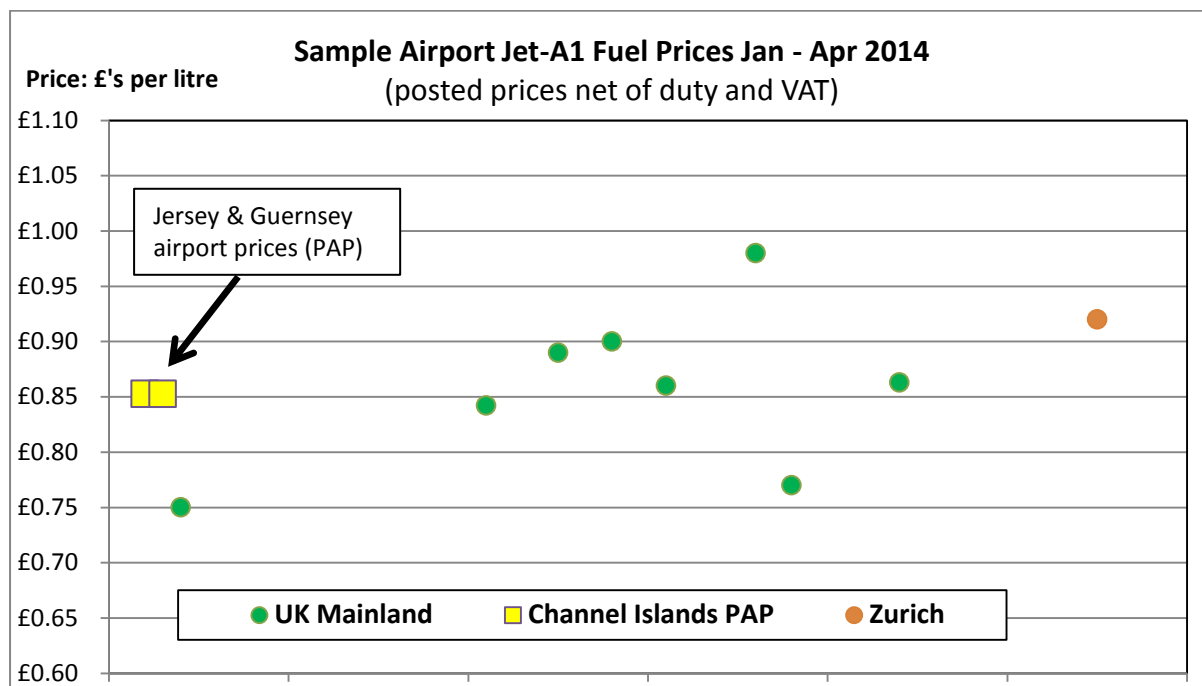


Based on these estimates, Avgas shows a similar pattern to Jet A1 with greater volatility in price for the smaller volumes. There does however appear to be a slight increase in the margin over reference prices over the period.

Price comparisons for Jet A1 with other airports are given in Figures 5-8. Figure 5 compares prices for a number of locations in the South West UK region as well as Zurich airport. Figure 6 shows the prices paid by airlines using relatively significant quantities of fuel at a range of airports during 2013.

The Jersey and Guernsey PAP for Jet A1 are identical. Based on Figure 5 data we have concluded that, while Channel Island prices are substantially higher than major European airports, with regional airports lying somewhere between the two, the prices posted in Jersey and Guernsey are not out of line with those at a number of smaller airports in the UK.

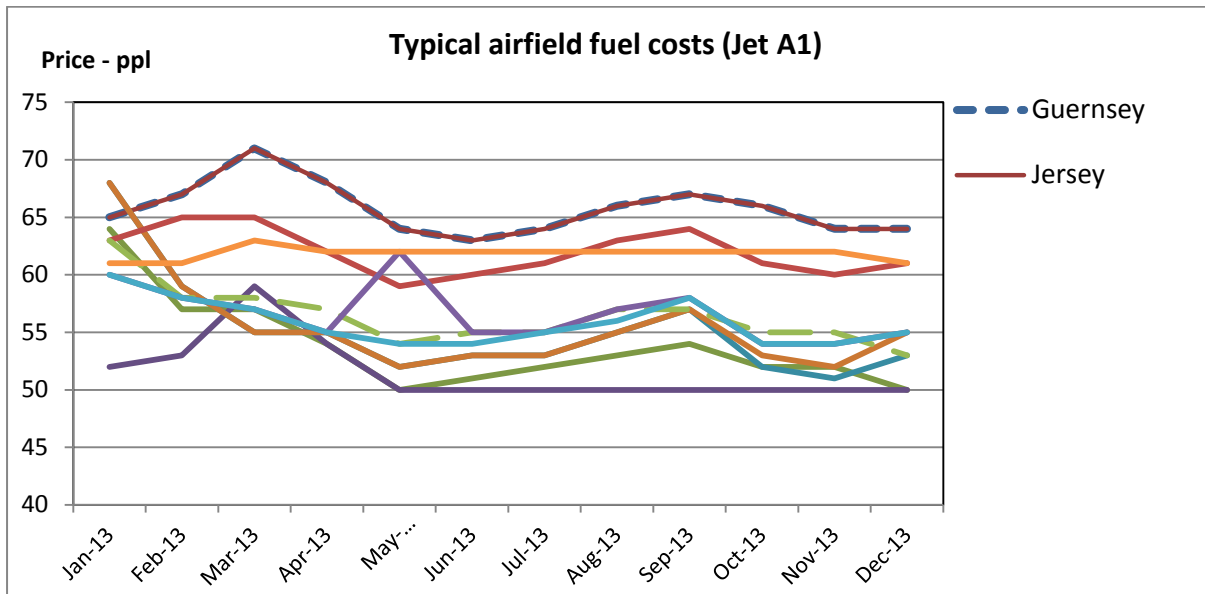
**Figure 5: Jet A1 PAP net of duty & VAT/GST for Jan – Apr 2014**



As previously noted, the PAP is not particularly representative of prices paid by large airlines or major fuel purchasers. Significant commercial operators, airlines and FBOs are able to negotiate supply agreements or individual pricing arrangements which offer substantial discounts of up to 20% and appear broadly to reflect the volumes of fuel purchased. These arrangements are made on a commercial basis and may include, for example, minimum purchase volumes.

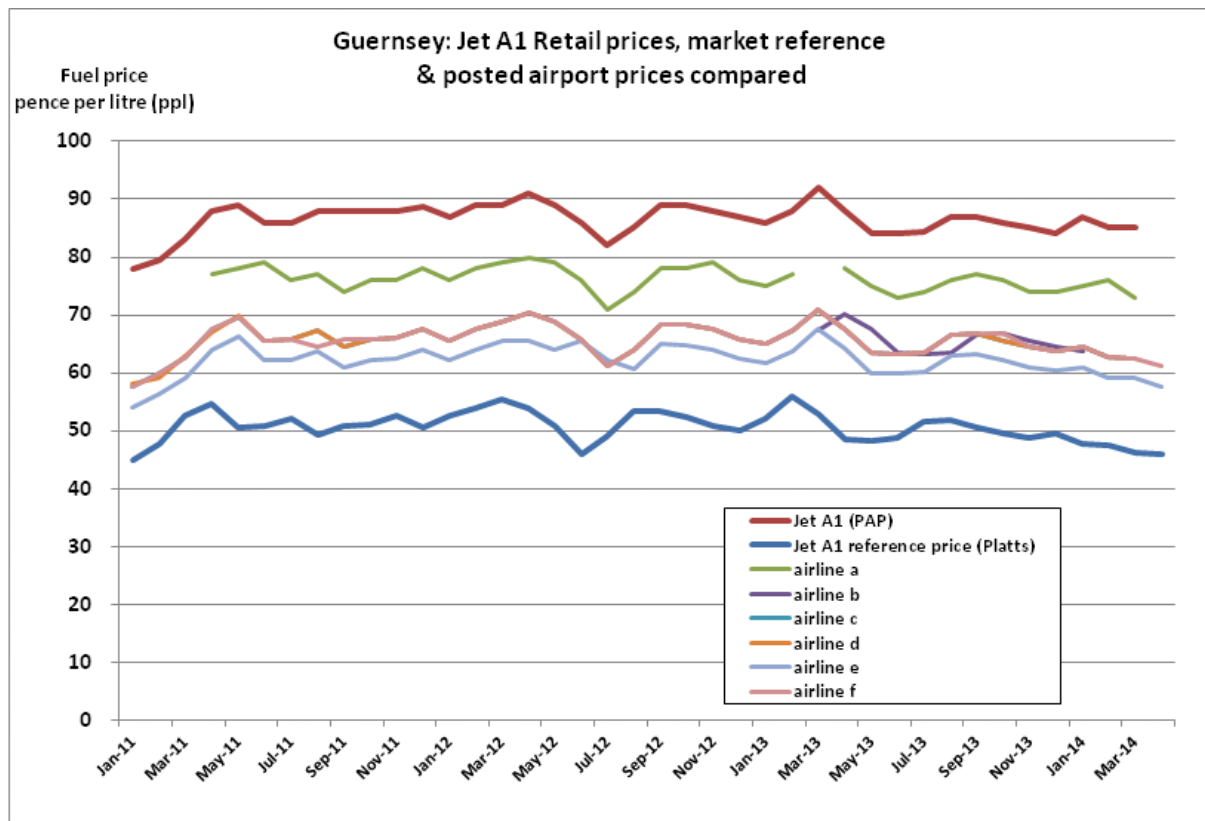
Figure 6 shows the prices paid by airlines for fuel across a range of European airports. It is apparent that prices vary significantly between airports and over time, reflecting not only the cost of fuel locally but also the volumes purchased by the airline. Nevertheless, it provides a good illustration of the range of prices. While it shows prices in Guernsey and Jersey to be higher than elsewhere, most of the comparisons we have been able to obtain are with larger airports. Figure 6 confirms that airlines are able to access pricing significantly below PAP.

Figure 6: 2013 Jet prices at a range of airfields across an airline network (net of duty)

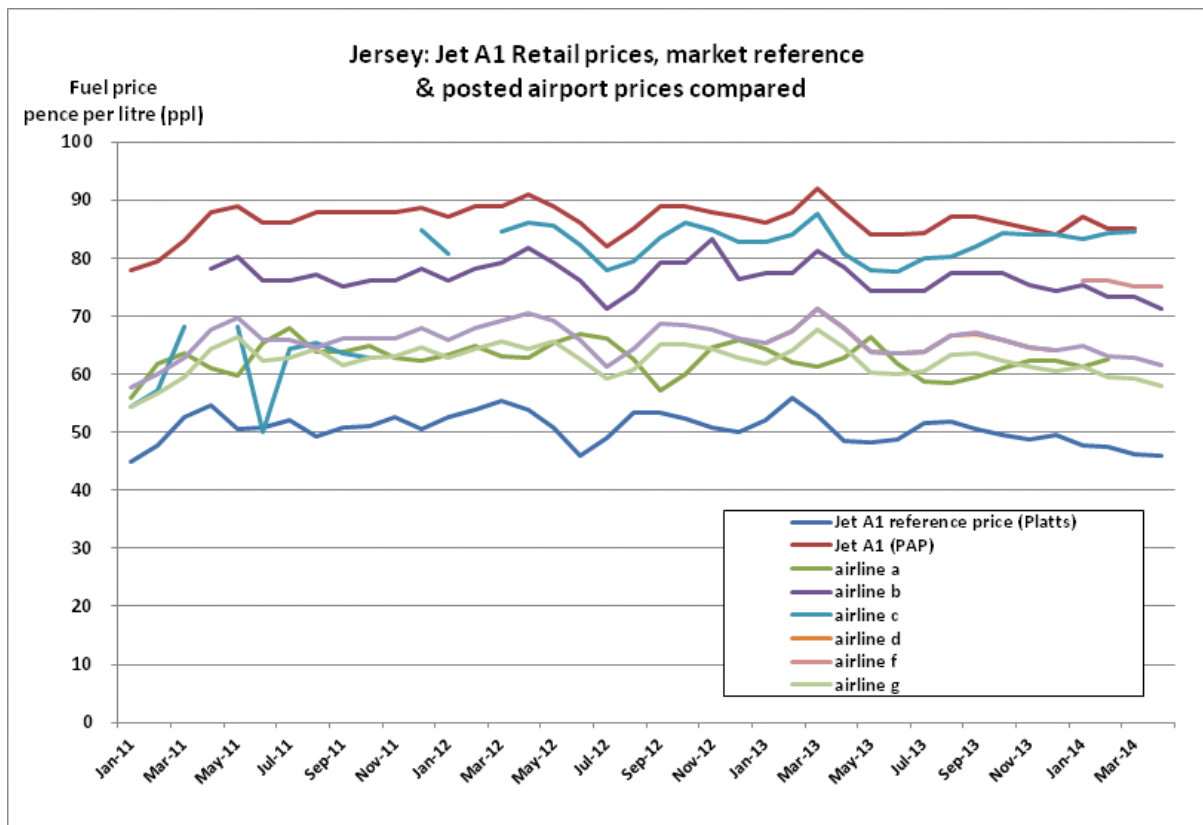


The following charts (Figures 7 & 8 below) illustrate the range of fuel purchase prices paid by the main airlines and Fixed Base Operators (FBOs) for Jet fuel and Avgas in Jersey and Guernsey.

Figures 7: Jet A1 Actual retail prices vs Platts reference price and PAP, Jersey



**Figure 8: Jet A1 actual retail prices vs Platts reference price and PAP, Guernsey**



These charts illustrate that the price paid for the majority of fuel delivered to airlines and FBOs in both Jersey and Guernsey is some way below the headline PAP and that different discounts are negotiated.

Direct comparisons with prices in the Isle of Man have been difficult to obtain, with confidentiality of agreements cited as a reason by commercial airlines. However, the limited data we have been able to obtain indicates that the headline retail price (PAP) is 15ppl higher for Jet A1 and 2ppl for Avgas in the Isle of Man than Jersey and Guernsey. Based on the limited information available aviation fuel prices for Jersey, Guernsey and the Isle of Man (IoM) are respectively around 106%, 107% and 115% of UK base prices.

#### 4. Cost Analysis

This analysis was completed separately for Jersey and Guernsey, due to the underlying differences in the fuel markets between the islands and covered the period 1 January to 30 April 2014. The balance between volumes of Jet-A1 and Avgas for each island is different, which is reflected in the different selling prices achieved from the customer mix on both islands, operating costs are different for each island and Jersey charges GST on Avgas and an airport levy on both types of aviation fuel.

Assumptions around the costs of product acquisition and importation have been based on current market information and understanding of industry practice, supplemented by extrapolation from data provided by FSCI during 2013 to JCRA during a study on heating oil prices in Jersey, and assumptions on optimal or dis-optimal supply chain costs as appropriate. The overall quantum of the figures presented in the following Netback calculations and analysis is considered accurate within 2-4 ppl<sup>7</sup>.

The full detailed netback analysis for each of the fuel products by island is set out in Annex 2. The summary below sets out a side by side comparison of the supply chain costs between Jersey, Guernsey and the UK for Jet A1 (as the main product in the market).

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<sup>7</sup> There were some issues with data – particularly a lack of transparency from Rubis/FSCI in the detailed breakdown of costs in certain areas of this analysis. Notably the full disclosure of all product acquisition and importation costs was not made available, and therefore there are unaccounted-for product acquisition costs in each island amounting to 2-4 pence per litre (2.5ppl Jersey, 4ppl Guernsey) when shared across the volumes of fuel supplied in each island over the relevant period.

There is also no separate break-down of sales revenue or average selling price between Jet-A1 and Avgas given by FSCI. It is also understood that the Aviation business line figures supplied by FSCI also include aviation lubricant sales volume and revenue. For the purposes of this analysis, this was addressed through informed assumptions.

**Figure 9: Netback comparison for Jet A1 fuel [costs in ppl unless otherwise noted]**

	UK	Jersey	Guernsey
<b>Platts Jet Kero reference price (Platts)</b>	<b>47.7</b>	<b>47.7</b>	<b>47.7</b>
<b>Procurement costs</b>			
Product/Seller's premium }	0.6		
Product trader's cost recovery }			
<b>Primary freight costs</b>			
Primary Freight charge }			
In-transit loss allowance }			
Harbour Dues }	1.4		
Goods-in-Transit Insurance }			
Inspection Costs }			
<b>Throughput costs</b>			
Terminal throughput fees }	0.4		
Stock loss allowance }			
<b>Buying Price ex-rack, local terminal</b>	<b>50.1</b>	<b>55.6</b>	<b>55.5</b>
Secondary Distribution	1.1		
Fixed/Direct Overheads	2.9		
<b>Delivered Cost</b>	<b>54.2</b>	<b>64.9</b>	<b>69.8</b>
Typical Selling Price [Jan – Apr] (after discounts for commercial large users etc)	55.0	63.1	65.0
EBITDA <sup>8</sup> [Jan – Apr] ppl	0.8		
Jet-A1 sales volume [million litres]			
EBITDA [Jan – Apr] [£k]			

<sup>8</sup> Earnings before interest, tax, depreciation and amortisation

The “UK typical” analysis is based on average buying and selling prices for oil distributors in the South West region of the UK, which showed that the average product acquisition cost above the “raw” Platts price assessments was 2.37ppl. This represented purchase of the product on an ex-rack<sup>9</sup> basis at a terminal and therefore includes primary transportation from refinery to terminal, goods-in-transit insurance, product loss allowances during transit and in terminal, profit and product quality inspections. This overall cost of acquisition has been allocated to the separate cost categories associated with acquisition and importation to the islands to make the comparisons clearer.

Figure 9 shows the different additional supply chain costs between the three locations. These have been assessed and discussed below.

*Sea freight charges* to the islands appear high in unit terms. Tidal and berth restrictions limit the type and size of tankship and, coupled with the necessity to carry smaller than optimal cargo volumes in order to balance supply parcels with the storage available in shore tanks upon discharge, the fixed per-voyage costs are higher, exacerbated by less than full cargoes. Avoiding these higher costs and sub-optimal shipping arrangements would require significant investment in infrastructure - harbour facilities allow a greater range of tankships to deliver fuel and/or more storage tanks are erected on island. Given the cost, it is likely that both Jersey’s and Guernsey’s importation costs will continue to be disadvantaged by large unitised freight rates and costs for the foreseeable future.

*Inspection costs* are high. There is a fixed fee of £5,000 per shipment per product – as advised by FSCI – and aviation fuels must always be inspected. The small parcels of product delivered to the Channel Islands increase the unit cost of inspections in comparison to the much larger cargoes typically carried as industry standard, and which would also only accrue a single £5,000 inspection fee.

*Throughput fees* at La Collette and St Sampson were not separately disclosed in this investigation. Without full transparency, it is not possible to comment on the reasonableness and validity of the throughput fees and other terminal related cost-recovery mechanisms. Based on previous unit rates, costs are considerably higher than those evidenced at UK terminals. However, the volume of products throughput in the Channel Islands is considerably lower. This leads to higher unit costs because of lower tank turnover and utilization factors. In addition, improvement works and capital expenditure must be recovered from smaller volumes of sales and have a greater impact on unit fuel prices.

*Secondary Distribution* is the cost of moving aviation fuel products from the import terminal to the airport storage tanks. In comparison with the UK, there are shorter round-trip distances, and related lower fuel costs may offset to some degree the higher unit charges of depreciation or lease costs evident. The other fixed or direct overheads show a marked

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<sup>9</sup> i.e. inclusive of logistics costs



difference to the equivalent UK costs, with the actual provision of aircraft refuelling services at Guernsey and Jersey airports a material contributor to this cost differential.

Based on the number of hours for which a full fuel service is required to be available, safety requirements and safe working practices will determine the minimum staffing levels, and staff costs will necessarily follow. The proportion of *Wages* in relation to the total direct overheads – at 57% in Guernsey and 54% in Jersey – is the most significant cost. Staff costs add more than 8ppl to the price of products at Guernsey Airport, and 5ppl at Jersey Airport. Therefore the high costs are likely to reflect both the higher costs of staff in the Channel Islands and the smaller volumes of fuel supplied compared to UK or European equivalents. Aside from the unaccounted-for costs of between 2 and 4 ppl discussed earlier, all cost categories have been established, evaluated and compared with the typical UK supply chain costs.

#### *Conclusions of cost analysis*

The costs of product acquisition are broadly in line with UK. However the shipping and freight costs reflect the severe constraints (particularly in the case of Guernsey) on the number of suitable tankships which can deliver products to the islands, and the berth restrictions and availability of on-island storage that constrain the size of each import parcel. These operating issues require FSCI to buy smaller product parcels more often, and increase the unit cost of fuel compared with the mainland UK and elsewhere in Europe. It can be argued that the island supply price keeps in better step with international market movements – both up and down – than would be the case if, say, 6 months' Jet-A1 was acquired at a time. The cost of carrying such large inventory would however likely be passed onto aviation fuel customers, who may experience fewer but more significant fluctuations in prices. The loss of Flybe's fuel demand, cost increases every year (e.g. from x and y) and the difficulty of continual efficiency improvements (e.g. x and y) all lead to a spiral of declining volumes, increasing unitised cost recovery and thus price rises, leading to yet more volume decline.

The current fuel infrastructure, the constraints of the supply chain, the acquisition costs and the requirement to provide airport refuelling on an "*open all hours*" basis, all have implications for the cost of fuel supplies in the market. For Avgas the scale of the market means that a full service fuel operation is subject to the associated challenges of significantly reduced volumes. This highlights one area of cost saving which could be explored, namely the potential for reduced operating hours, possibly to be combined with some call out arrangement (with appropriate fees) when out of hours services are required. Aside from the opening hours issue, the other main cost saving that could be explored would be the installation of self-service Avgas equipment. It is not known whether FSCI has developed proposals to this end but the replacement of Aurigny's Trislander aircraft will

hasten a step-change in Avgas demand – especially on Guernsey, where existing Avgas volumes could be halved.

## 5. Barriers to Entry & Competition

The entry of new suppliers, or the credible threat of new suppliers entering a sector, usually brings benefits to consumers. New entry can increase competition by giving consumers a greater choice of products, quality, price and services – often driving down prices or increasing the quality offered by existing suppliers. New entrants to a sector almost always face barriers to entry, typically:

- the advantage to incumbents that their investment costs are ‘sunk’;
- a scarcity of resources, such as appropriately skilled labour or suitable sites;
- securing supply or distribution, where capacity is already contracted to incumbents;
- legislation & regulations that the entrant needs to understand and comply with; and
- a lack of scale economies in a market compared to incumbents.

In the case of small markets, such as the Channel Islands aviation fuel market, where the sustainability of supply could become a serious issue, there is a concern about the extent to which market entry could be economically supported. Examples of the concerns are that this would give rise to duplication of assets and the need for fixed overhead and support costs to be shared across smaller volumes of sales. On the other hand, this is where innovation from new entrants, perhaps through alternative approaches to services or the supply chain or the shared use of assets can bring substantial benefits to customers.

A specific barrier for the Channel Islands aviation fuel market is access. There is limited space at either airport for additional storage facilities. Third party access is not explicitly provided for at the airport fuel storage facilities. At La Collette Terminal (LCT) there is provision for third party access, but this has not been tested to date.

At each airport, since the airport lease a site to the operators, the relevant airport authority could require, as part of any new or revised lease arrangement, that third party access to facilities be made available on fair, reasonable and non-discriminatory (“FRAND”)<sup>10</sup> terms.

Alternatively, where timing and other arrangements permit, airport authorities might consider taking on a more active role in facilities management and encouraging multi-party access to allow competing operators open access to fuelling facilities. This could be achieved, for example, by separating the operation of the airport facilities and fuel farm from the supply of aviation fuel; allowing more than one supplier to access on site fuel storage. Separating the operator from the retailer may facilitate this.

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<sup>10</sup> FRAND: Fair Reasonable and Non-Discriminatory, as set out in Annex 4

Consideration should be given to competition for the market (distinct from competition within the market) by competitive tendering for services. Shared commercial arrangements might include shared use of other assets, e.g. delivery vehicles, by more than one retailer, mutual arrangements to cover “out of hours” services or for these services to be provided directly by the airport fuel farm operator. In this way it would be possible to remove some of the overheads and risks from operators, improve asset utilisation and reduce overall costs.

We suggest it would be important to ensure that changes do not simply replace one potentially monopolistic fuel operator with another, that appropriate investment and compliance with safety standards is obviously maintained and that the benefits of alternative pricing approaches are passed on to all customer groups.

## **6. Conclusions**

Because of the relatively small volumes, the complex fuel shipping requirements and other factors, such as high local labour costs and planning restrictions, the supply of aviation fuel in the Channel Islands does not offer the same opportunities for economies of scale or economies of scope that are available at larger airports or in England and Wales where there is a much more developed and competitive supply infrastructure.

Therefore it is not surprising to see that aviation fuel prices are higher locally in both Jersey and Guernsey as a result of smaller purchase volumes, high shipping and distribution costs. The greater degree of capital intensity in the Channel Islands, and the need to spread fixed overhead costs across relatively small volumes of fuel means that fuel prices, even for an efficient operator, will rise against declining volumes.

In addition, aviation fuel costs in Jersey and Guernsey have increased significantly compared to the years prior to Rubis (FSCI's) acquisition of the airport fuel supplies. However, this appears to be a consequence of the removal of implicit cross-subsidies which existed when the previous local fuel supplier was able to offer regional or Europe wide pricing to major customers, rather than excessive pricing on the part of the current operator. There is no strong indication of an increasing difference between wholesale and retail prices, and particularly in the Jet A1 market, the differential has remained stable over a number of years. Price comparisons with Isle of Man also indicate that retail prices in Jersey and Guernsey are in relative terms not excessive.

That is not to say that the margin between wholesale and retail costs is fully accounted for, or that the costs incurred by FSCI reflect that of a particularly efficient operator. However, many of the costs, including the basic wholesale market price and shipping/import costs are outside the company's direct control and given low fuel volumes and high local costs we do not see the prospect that Channel Island prices could be brought down to the same level as those of regional airports in the UK or Europe. While there may be scope for reducing costs

at the margins, this is unlikely to be sufficient to have material impact on overall market volumes or change commercial operator's preference for purchasing fuel elsewhere.

In conclusion we consider that these additional costs, together with the high costs of employment and operating in the Channel Islands account for the substantial majority of the price difference between the Channel Islands and the UK and margin between wholesale and retail prices.

However, this does not account for the entire difference and there are issues which also add to the differential which may be within operators' or the airport's control.

- Level of return on capital and/or payback period for investments
- Under utilisation of resources/inefficient operation
- Costs of use of storage facilities (e.g. throughput charges);
- Sub optimum procurement arrangements
- Airport fuel levy (Jersey only)

There is an explanation gap between prices in the disclosed product acquisition costs and the detailed breakdown of costs by category. These costs which are not clearly accounted for in the detailed breakdown amount to approximately 2.5ppl in Jersey and 4ppl in Guernsey. While it would be of interest to resolve this issue, it seems likely to relate to a share of the centralised overhead costs of product purchase and acquisition and as such is not unreasonable. There is no evidence that it relates to excessive returns or costs which might be avoidable, and even if that were the case, it would not be sufficient to close the gap in relative prices between the Channel Islands and UK airports to significantly affect the volumes of fuel purchased locally by large commercial operators.

While there are a number of cost elements in the supply chain which appear to be greater than might be expected from an efficient operator, they would also not be sufficient to bridge the gap between the UK and Channel Islands prices. Therefore we do not consider that there is a case for price regulation or separation of retail supply and distribution, to be contemplated as an outcome of the review. Instead, competition should be encouraged in those areas where it is sustainable.

## **7. Recommendations**

Competition and access might be encouraged at those stages of the supply chain where it is feasible, safe and sustainable.

- In negotiating future lease facility arrangements for airport fuel facilities and access, both airport operators (currently the States of Jersey Economic Development Department and the States of Guernsey Public Services Department) should consider including terms enabling third party access to fuel facilities and throughput arrangements.

- Jersey / Guernsey airports should review and consider the operating hours and availability of fuel facilities, with a view to whether the operating hours are sustainable or whether commercial operators, in the normal course of business, would be able to meet their fuel requirements with reduced hours of operation. We believe that this should result in some reduction in the price of fuel (at current volumes of demand).
- To maintain the sustainability of Avgas supplies, the airports should give consideration to opportunities for self supply and self service, to the extent that they are compatible with safety aircraft traffic management.
- Review the level of charge for storage and throughput facilities in the Channel Islands compared with similar operations elsewhere; and determine whether there is any indication of abuse of a dominant position within the market or a need for designation as essential facilities. This has potentially wider benefits for the fuel market as a whole and the overall economies of Jersey and Guernsey.

## **Annex 1: Terms of Reference**

The terms of reference for the study were as follows.

- 1) To identify the extent of the differences in the prices for aviation fuel at the importation, wholesale and retail levels between Jersey and Guernsey and the Isle of Man, and any other locations that the JCRA/GCRA considers relevant, net of taxes and duty;
- 2) To assess the extent to which any such differences can be justified by reference to differences in cost; and
- 3) To consider whether measures could be taken to increase the extent of competition in the supply of aviation fuel in Jersey/Guernsey, or to otherwise improve outcomes for consumers and to make any recommendations for changes or improvements that might be considered.

Given that aviation fuel supplies are critical to essential transport links in both islands, that many of the features of the respective markets were likely to be similar, and that the same solus supplier of aviation fuel operates in both islands, the Channel Islands Competition and Regulatory Authorities (**CICRA**), determined that a single study should be undertaken on a pan-Channel Islands' basis and that a single report would be produced, which was supported by both EDD and C&E.

## **Annex 2: Detailed netback analysis**

**Table 1: Netback Analysis for All Aviation Fuels** (all figures shown in pence-per-litre)

[Table redacted for confidential information]

**Table 2: Netback Analysis for Jet-A1 ONLY** (all figures shown in pence-per-litre)

[Table redacted for confidential information]



## Annex 3: Previous Reviews

### Jersey

#### 2012: Fuel Price Margin Analysis<sup>11</sup>

This was an internal report commissioned by the Ports of Jersey, but shared in confidence with the JCRA. The report examined supply chain costs for both aviation and marine fuel in Jersey, focusing on Jet and marine diesel, and the authors suggested that the “comparatively higher retained margin of 22-32ppl suggest the presence of monopolistic behaviour.” However, the report concluded that an aviation market the size of Jersey (noting that Guernsey is even smaller) lacks the critical mass to support a multiple supplier structure and could increase supply chain costs, as increasing competition could potentially decrease further economies of scale.

#### 2009: Comparative Energy prices in Jersey<sup>12</sup>

This report was commissioned by the States of Jersey to review the size, structure and operation of all the energy markets in Jersey and update previous work, carried out in 2004 by the same consultants. The report concluded that the case for regulation of the energy markets had not been proven, but that a lack of value for money being achieved by all industries suggested the need for further investigation.

#### 2004: Review of the Current Arrangements for Importation<sup>13</sup>

This report, published in December 2004, was commissioned to review the leasing of public land to the Fuel Consortium and to review the current arrangements for the importation, storage and supply to the distribution and retail system in Jersey and to make suggestions for improvements or alternatives to meet consumer and strategic interests. The report found that Jersey’s demand for Avgas in 2003 had represented 1.6% of the total UK demand for the product. The authors suggested that lack of price transparency restricted consumer choice and assessed that operating costs at LCT did not exceed £500k per annum, which when divided by the throughput volume of some 130 million gave an extrapolated throughput cost of 0.38 pence per litre (ppl).

### Guernsey

#### 2010: Aviation Fuel Prices Study<sup>14</sup>

This study was commissioned by C&E to investigate costs, margins and profitability and make recommendations on any volume, margin and profit improvements that would enhance the existing operation and thus preserve supply security; and also consider whether there was adequate critical mass to introduce a level of competition. The author concluded that there was no obvious solution to the issue of higher aviation fuel prices and that product supply costs for Avgas have broadly been in line with the market for the increasingly difficult to source. The report also concluded that airport fuel farm operating costs remain unsustainable in the face of halving volume throughput and that a reduction in staff costs would mean a commensurate reduction in service levels and/or hours of fuel availability.

In summary, while several reports have been commissioned to examine costs in the supply chain for fuel imports, none of the reports detailed above have highlighted a particular part of the market that is not working well.

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<sup>11</sup> Arup, July 2013, *Fuel Price Analysis*. Arup agreed we could reference the report subject to the note below

<sup>12</sup> Consultancy Solutions, January 2009, *Comparative Energy Prices in Jersey*

<sup>13</sup> Consultancy Solutions, 2004, *Review of the Current Arrangements of the Importation, Storage and Supply of Petroleum Products to the Distributors and Retail System in Jersey*

<sup>14</sup> Consultancy Solutions, December 2010, *Report into the Supply of Aviation Fuels in Guernsey*

### **Note on ARUP Jersey report**

*“Arup has been preparing this report as a first phase. A second phase was put on hold before work inception which would have progressed into a more detailed business case study. Primary sources of information for this report have been documents provided by the Ports of Jersey, publically available information and information gathered during meetings. We have satisfied ourselves, so far as possible, that the information presented in our report is consistent with the information which was made available. We have not sought to establish the reliability of the sources by reference to other evidence. We must emphasise that the conclusions and opinions set out within the Report are dependent upon the validity of the assumptions and data upon which they are based. We accept no responsibility for future pricing developments or any financial impacts. Actual performance and results are likely to be different from those shown, because events and circumstances frequently do not occur as expected, and the differences may be material.”*

## Annex 4

### FAIR, REASONABLE AND NON-DISCRIMINATORY TERMS

The concept of “fair, reasonable and non-discriminatory” (FRAND) terms is used frequently in contract law and competition law contexts, and is referenced in the European Commission’s competition law guidelines on horizontal co-operation agreements<sup>15</sup>. Conditions imposed by the JCRA in its approval of the *E.C. Le Feuvre Agricultural Machinery Limited/Jersey Royal (Potato Marketing) Limited*<sup>16</sup> merger required the acquirer to supply maintenance services and spare parts to tractors and other agricultural machinery in a “fair, reasonable and non-discriminatory manner”. FRAND is also similar to the concept of “just and reasonable rates” used in many public utility statutes in the United States.<sup>17</sup>

Whether particular terms are FRAND is ultimately a question of fact for the decision-maker (in this case, an arbitrator). However, based on the comments of regulatory authorities and courts in relation to FRAND, the requirements can be summarised as follows:

- In order to be “fair”, terms should not include elements which distort competition – for example, anti-competitive tying (requiring a party purchasing throughput services to also purchase other services supplied in a competitive market) or exclusivity provisions.
- To be “reasonable”, the rates applied must not be excessive.
- “Non-discriminatory” terms are those which treat all customers on an equivalent basis. A commitment to non-discrimination does not require terms to be identical for all customers,

The European Commission states that the assessment of whether fees charged for access are unreasonable should be based on whether the fees “bear a reasonable relationship to the economic value” of the service. In general, there are various methods available to make this assessment. The European Commission notes the difficulties in the context of intellectual property rights of applying cost-based methods.<sup>18</sup> However, in the context of the supply of throughput services, there would appear to be far more scope for the arbitrator to have regard to the costs of supplying the service. According to decisions of the European Court of Justice, economic value can also be judged by reference to fees charged by other suppliers for comparable goods or services, especially where those suppliers operate in competitive markets<sup>19</sup>.

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<sup>15</sup> European Commission, *Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements*, 2011/C 11/01, 14 January 2011

<sup>16</sup> Decision M171/08 (16 September 2008)

<sup>17</sup> *Duquesne Light Co. v Barasch*, 488 U.S. 299, 310 (1989)

<sup>18</sup> Footnote 1, paragraph 289: “In principle, cost-based methods are not well adapted to this context because of the difficulty in assessing the costs attributable to the development of a particular patent or groups of patents”.

<sup>19</sup> *Corinne Bodson v Pompes Funebres* (Case 30/87); *Lucazeau v SACEM* (Case 110/88)