

FUEL PRICING QLD DIRECT API

API (OUT) DEFINITION

API Version 1.2

Publisher and Data Consumer Guide
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REVISION HISTORY

Version	Last Edited	Author	Changes
V1.0	09/11/2018	Gordon Tetther	Initial document release
V1.1	12/11/2018	Nick Milillo	Overview amendments
V1.2	03/12/2018	Gordon Tetther	Changed Authorisation to Authorization throughout document. Updated swagger URL

OVERVIEW

The [Queensland Government's mandatory two-year Fuel Price Reporting](#) trial requires all fuel retailers in Queensland to report their fuel prices within 30 minutes of a price change at the bowser.

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The Queensland Government has commissioned an external supplier (the ‘Aggregator’ known as Fuel Prices QLD) to operate the service that enables access to fuel price reporting data as a fuel price publisher or data consumer (“Data Consumers”).

This User Guide relates to the API method of fuel price data retrieval.

GENERAL INFORMATION

Overview

The Aggregator operates a service called ‘Fuel Prices QLD Direct API (OUT)’. Subject to acceptance of the fuel price data licence terms of service, the data consumer will be granted the right to connect to the service. The data consumer will then be a subscriber to the Fuel Prices QLD Direct API (OUT). This document describes some of the systems and procedures involved in the service. This document is subject to the fuel price data licence terms of service agreed between the Data Consumer and Fuel Prices QLD.

The service is published as public API methods. Data consumers will be provided with a key (‘Data Consumer Token’) to use this service.

The Fuel Prices QLD Direct API (OUT) is intended for calls from the Data Consumer on request, where the Data Consumer will then save that data in their own system. i.e. server to server calls. It is not intended to be called by large numbers of end users directly via websites or Apps.

The Fuel Prices QLD Direct API (OUT) requires that all calls be made using HTTPS. All calls must provide a valid Data Consumer Token.

As the Fuel Prices QLD Direct API (OUT) may be developed over time, the information in this document is subject to change and use of the API is subject to the terms and conditions of service.

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Use of HTTPS

All requests to the Fuel Prices QLD Direct API (OUT), from the Data Consumer's Service, must use HTTPS.

Terms

The following terms are used in this document.

Data Consumer

The company/entity which enters into a Fuel Price Data Licence Terms of Service agreement with the State of Queensland as represented by the Department of Natural Resources, Mines and Energy for use of the Fuel Prices QLD Direct API (OUT).

Fuel Prices QLD Direct API (OUT)

Server based software which accepts request from Data Consumers. The Fuel Prices QLD Direct API (OUT) will be used to provide fuel prices to Data Consumers.

Token

This is a very large random number (a GUID), which is extremely difficult to guess. A Token can be used as an identifier. Because a Token is extremely difficult to guess, a Token can be used to discretely identify something e.g. a Data Consumer, where the Data Consumer Token is known only to the Data Consumer and to the Fuel Prices QLD Direct API.

Data Consumer Token

A Token used to identify a Data Consumer. It is the responsibility of the Data Consumer to keep the Data Consumer Token secret. The Data Consumer Token will be used to prove that a request has come from the Data Consumer.

Additional Information

HTTP Content Type header

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When an API method is called, the HTTP request header must have the “Content-Type” header set to “application/json” for any API method which requires JSON payload.

Possible HTTP response statuses

When an API method is called, the HTTP response status may be one of the following:

- 200 – OK [The request was processed without error]
- 400 – The request is invalid [One or more parameters had an invalid value]
- 401 – Unauthorised [A valid API key was not provided, when one was expected]
- 403 – Forbidden [API refuses to respond to the call]
- 404 – Not found [API does not have this method]
- 500 – Internal Server Error [An unexpected error occurred on the server]

The Data Consumer should examine the HTTP response code in order to perform appropriate actions before consuming any values in the body of the response.

API Authentication

The Fuel Prices QLD Direct API (OUT) uses the standard HTTP Authorization header to pass authentication information.

Data Consumers are issued a Fuel Prices QLD Direct API (OUT) Data Consumer Token. Tokens are 32 digit GUIDs.

Under the Fuel Prices QLD Direct API (OUT) authentication scheme, the Authorization header has the following form:

Authorization: FPDAPI SubscriberToken=*Data Consumer Token*

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Each API method requires the Data Consumer Token to be presented in the Authorization header. The Data Consumer Token in the header should be a GUID formatted as 32 digits separated by hyphens, e.g. 2FEB37D3-4326-4E30-8705-0FCE0519B6D1

Here is an example HTTP Authorization header:

Authorization: FPDAPI SubscriberToken=2FEB37D3-4326-4E30-8705-0FCE0519B6D1

Environments

An 'integration' environment will be made available for Data Consumer's to connect to. This environment can be used when Data Consumers are developing software to connect to the Fuel Prices QLD Direct API (OUT).

Important: fuel prices returned by the integration environment are not live fuel prices – this is test data only. Data Consumers would need to connect their production software to the production version of the Fuel Prices QLD Direct API (OUT).

Swagger

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JSON RESPONSE DATA

The data returned from the API is in JSON (JavaScript Object Notation) format. The Aggregator may, over time, add additional values to the set of values being returned from an API method, or re-order the set of values returned from an API method. For example, the following is a sample of data which could be returned from the `GetFullSiteDetails()` method:

```
{
  "S": [
    {
      "S": 1,
      "A": "Address 1",
      "N": "Name 1",
      "B": 1,
      "P": "4556",
      "G1": 456,
      "G2": 1,
      "G3": 1
    }
  ]
}
```

In this case “A” stores the address of a site and “N” stores the name of a site. The Data Consumer should not create software which depends on the name value appearing somewhere after (or directly after) the address value in the response from the API. Likewise, the Aggregator may add additional fields to the response (e.g. “Lat” and “Lng” in the following example) and these may appear inter mingled with the existing fields. See the following example.

```
{
  "S": [
    {
      "S": 1,
      "A": "Address 1",
      "Lat": -27.123456,
      "N": "Name 1",
      "Lng": 149.123456,
      "B": 1,
      "P": "4556",
      "G1": 456,
      "G2": 1,
      "G3": 1
    }
  ]
}
```

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```
}
```

These types of changes may be made by the Aggregator at any time and be considered as “non-breaking” changes to the API.

API METHODS

This document defines the public methods of the Fuel Prices QLD Direct API (OUT).

SITE CITY AND FUEL DETAILS

GetBrands(int countryId)

HTTP GET

<https://<apihost>/Subscriber/GetCountryBrands?countryId=21>

Authorization requires Data Consumer Token

Description: The Data Consumer’s Service must pass up the Data Consumer Token. This method returns a list of brands.

The following parameters are required for this call:

- CountryId: (21 = Australia)

Returns:

- a list of brand IDs along with brand names.

Example Return

```
{
  "BrandId": 2,
  "Name": "Caltex"
},
```

Load: The Data Consumer should call this method once per day, and store the downloaded data in their system for future access, subject to any licensing restrictions.

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Possible HTTP Response Codes: 200, 400, 401, 500.

400 status code will be returned if any of the parameter values do not match the required parameter type.

401 status code will be returned if the Data Consumer Token in the request is invalid, i.e. not known to the Fuel Prices QLD Direct API (OUT).

GetCountryGeographicRegions(int countryId)

HTTP GET

<https://<apihost>/Subscriber/GetCountryGeographicRegions?countryId=21>

Authorization requires Data Consumer Token

Description: The Data Consumer's Service must pass up the Data Consumer Token. This method returns a flattened hierarchy of geographic regions:

- State is level 3
- City is level 2
- Suburb is level 1

The following parameters are required for this call:

- CountryId: (21 = Australia)

Returns:

- a list of geographic region IDs along with levels, names, abbreviations and geographic region parent ids.

Example Return:

```
{
```

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```
"GeoRegionLevel": 2,  
"GeoRegionId": 1,  
"Name": "Brisbane",  
"Abbrev": "BRI",  
"GeoRegionParentId": 1  
},
```

Load: The Data Consumer should call this method once per day, and store the downloaded data in their system for future access, subject to any licensing restrictions.

Possible HTTP Response Codes: 200, 400, 401, 500.

400 status code will be returned if any of the parameter values do not match the required parameter type.

401 status code will be returned if the Data Consumer Token in the request is invalid, i.e. not known to the Fuel Prices QLD Direct API (OUT)

GetFuelTypes(int countryId)

HTTP GET

<https://<apihost>/Subscriber/GetCountryFuelTypes?countryId=21>

Authorization requires Data Consumer Token

Description: The Data Consumer's Service must pass up the Data Consumer Token. This method returns a list of fuel types (names and IDs).

The following parameters are required for this call:

- CountryId: (21 = Australia)

Returns:

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- a list of fuel type IDs and names.

Example Return

```
{  
  "FuelId": 5,  
  "Name": "Premium Unleaded 95"  
},
```

Load: The Data Consumer should call this method once per day and store the downloaded data in their system for future access, subject to any licensing restrictions.

Possible HTTP Response Codes: 200, 400, 401, 500.

400 status code will be returned if any of the parameter values do not match the required parameter type.

401 status code will be returned if the Data Consumer Token in the request is invalid, i.e. not known to the Fuel Prices QLD Direct API (OUT).

GetFullSiteDetails(int countryId, int geoRegionLevel, int geoRegionId)

HTTP GET

<https://<apihost>/Subscriber/GetFullSiteDetails?countryId=21&geoRegionLevel=3&geoRegionId=1>

Authorization requires Data Consumer Token

Description: The Data Consumer's Service must pass up the Data Consumer Token. This method returns a list of site details of the requested geographic region.

Site details are returned only for which the Data Consumer has subscribed to.

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The following parameters are required for this call:

- CountryId: (21 = Australia)
- GeoRegionLevel: (3 = states)
- GeoRegionId: (1 = Queensland)

NOTE: GeoRegionLevel parameter should be in range 1-5.

Example Return:

```
{
  "S": 61290151,
  "A": "61 Burrowes St",
  "N": "Caltex Surat",
  "B": 2,
  "P": "4417",
  "G1": 182624964,
  "G2": 178465038,
  "G3": 1,
  "G4": 0,
  "G5": 0,
  "Lat": -27.151797,
  "Lng": 149.067802
}
```

The response JSON is minified.

The site details will include the following:

- Site ID - S
- Name - N

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- Address - A
- Brand ID – B
- Postcode - P
- Geographic Region Level 1 – G1
- Geographic Region Level 2 – G2
- Geographic Region Level 3 – G3
- Geographic Region Level 4 – G4
- Geographic Region Level 5 – G5

Load: The Data Consumer should call this method once per day and store the downloaded data in their system for future access, subject to any licensing restrictions.

Possible HTTP Response Codes: 200, 400, 401, 500.

400 status code will be returned if any of the parameter values do not match the required parameter type, or geoRegionLevel parameter is out of range 1-5.

401 status code will be returned if the Data Consumer Token in the request is invalid, i.e. not known to the Fuel Prices QLD Direct API (OUT).

PRICE RETRIEVAL

GetSitesPrices(int countryId, int geoRegionLevel, int geoRegionId)

HTTP GET

<https://<apihost>/Price/GetSitesPrices?countryId=21&geoRegionLevel=3&geoRegionId=1>

Authorization requires Data Consumer Token

Description: The Data Consumer's Service must pass up the Data Consumer Token. This method returns a list of prices of the requested geographic region.

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Prices are returned only for which the Data Consumer has subscribed to.

The following parameters are required for this call:

- CountryId: (21 = Australia)
- GeoRegionLevel: (3 = states)
- GeoRegionId

NOTE: GeoRegionLevel parameter should be in range 1-5.

If this API method is called with CountryId set to 21 (Australia) and GeoRegionLevel set to 3 (states), then a value of 1 can be provided for GeoRegionId to return Queensland prices.

If "9999" is returned in the Price field, this indicates that the product is currently unavailable at the site.

Returns:

- A list of site IDs along with fuel ids and prices.
- Each price will be accompanied with the UTC timestamp and the collection method of the price at that site.

Example Return (JSON)

```
{
  "SiteId": 61477713,
  "FuelId": 14,
  "CollectionMethod": "Q",
  "TransactionDateUtc": "2018-10-25T22:55:00",
  "Price": 1679
}
```

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The Collection Method will be 'Q', for Queensland prices collected by the Aggregator.

Load: The Data Consumer shouldn't call this method more often than once per minute.

Possible HTTP Response Codes: 200, 400, 401, 403, 500.

400 status code will be returned if any of the parameter values do not match the required parameter type, or geoRegionLevel parameter is out of range 1-5.

401 status code will be returned if the Data Consumer Token in the request is invalid, i.e. not known to the Fuel Prices QLD Direct API (OUT).