

STTM Data Server

by



Gas

Short Term Trading Market Data Server

December 2011

About the STTM

In December 2011, the Australian Energy Market Operator introduced the Short Term Trading Market (STTM) for gas deliveries in Queensland.

The STTM has been introduced to facilitate physical trading of gas, storage and transport services for wholesale gas deliveries to South-East Queensland. There is strong consideration by regulators, participants and the market operator to extend the gas market to additional trading hubs in the future.

For the first time, published data is available presenting wholesale Queensland gas prices, and the value of services to vary supply and consumption levels. The market operator has made the market data available in CSV files.

Subsequently there is a need for market participants and interested parties to have access to the STTM data via an automated and reliable process. Energy Edge has developed a system to meet these needs – the STTM Data Server.

The STTM Data Server

Energy Edge has developed the *STTM Data Server* as a software product to gather the CSV files, make sense of the data and insert it into a formal database. From the database, several standard reports are available to present current market data and historical trends. Participants with the STTM Data Server can generate additional reports from the database to support their operational, trading and strategic decision making processes.

The *STTM Data Server* is a collection of data management software services dedicated to capturing, managing and visualizing the STTM market data. Users can capture and query current market data as well as establish historical market trends and perform regular reporting of prices and positions.

The software product is useful for market participants for analyzing the market data which relates to managing operational activities, short term production and consumption planning. Engagement in the market is compulsory for participants shipping gas into South-East Queensland along nominated pipelines.

The information published by the STTM market operator will provide great benefits for STTM market participants, as interrelated markets such as electricity which are driven by gas availability and prices.

- **Gas Energy Prices:** Establish the current prices for gas energy published in the wholesale market, for comparisons with gas supply or sales agreements.
- **Price Trends and Relationships:** Establish historical price trends for wholesale gas. Compare gas prices against weather variables or other energy markets such as electricity.
- **Gas Supply, Storage and Transport Terms:** gain insights into the value of market services which provide capabilities for banking gas, supplying or withdrawing additional gas
- **Market Familiarisation:** The STTM market is expected to expand to additional hubs, including Wullumbilla and the Gladstone LNG hub. Installation of the STTM

Data Server will prepare your IT infrastructure for the market data, and familiarize teams with the rules and structure of this complex market.

- **View Competitor and Customer Behaviours:** Query the market data for shipping and consumption levels of gas, offer and bid prices.

STTM Data Server Components

The *STTM Data Server* represents a collection of data management software services dedicated to capturing, managing and visualizing the STTM market data.

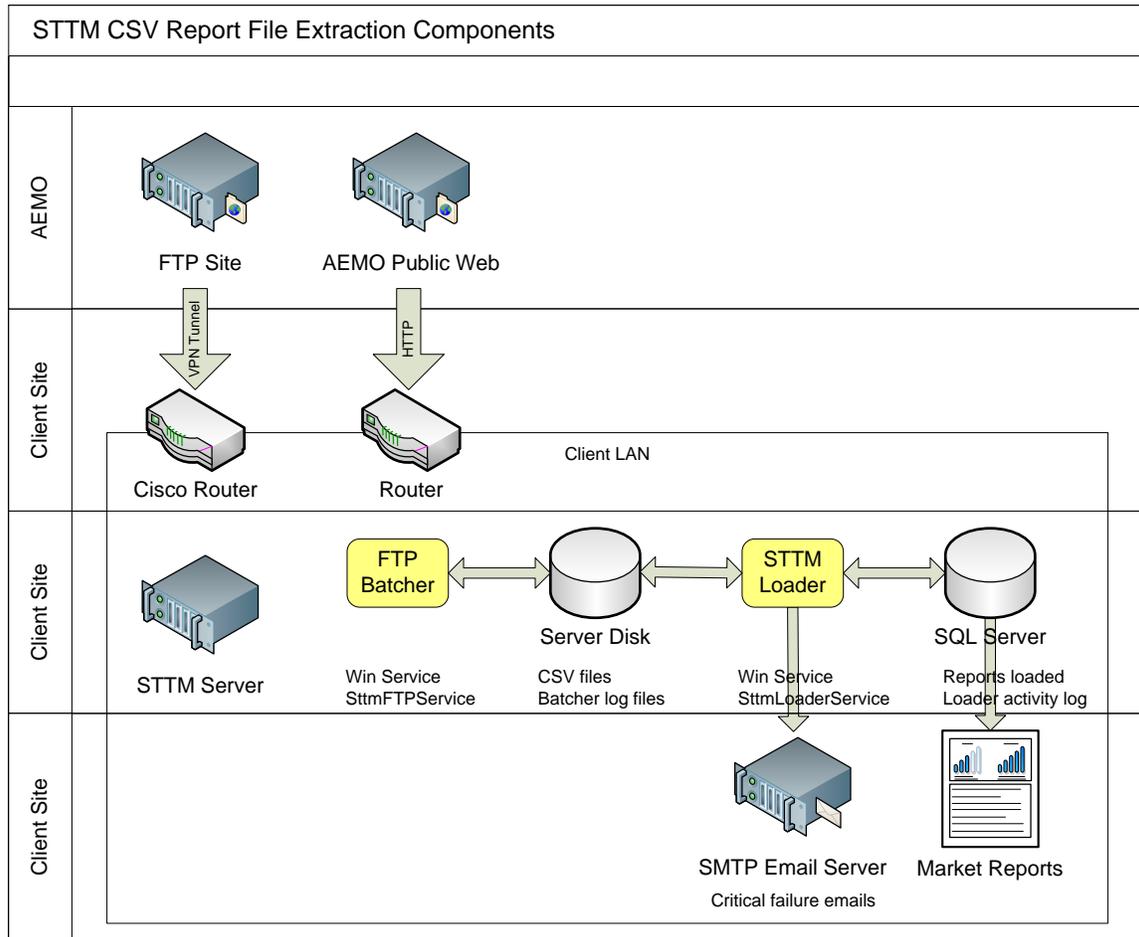
- **Data batcher:** Retrieve CSV files from the public web (for all parties) or a private FTP site (STTM participants only)
- **Data writer:** Read CSV files, parse data, insert into the database, prepare logs of the transactions and move the CSV files to a processed area.
- **Database:** Microsoft SQL Server database
- **Reports:** Summary reports on STTM market data

The STTM Data Server can be delivered in several alternative ways:

- **Full database:** The *STTM Data Server* is delivered as a full database hosted on your own servers and administered in-house. The updating services are lodged on your own servers. This allows a client to take full control of the STTM data management and administer the database.
- **Hosted Solution:** The *STTM Data Server* delivers information via a web service to deliver the results of queries from a remote server. Energy Edge maintains the database and performs data updates. A web service allows clients to access data from their own network on an as-needed basis. The data can be viewed in a browser, or applications can call a web service to query the data automatically.

The full database is a solution suitable for market participants and larger organisations with active involvement in the STTM and gas operations. The hosted solution is a cost effective light weight service suitable for smaller organizations or entities with an emerging interest in the gas markets.

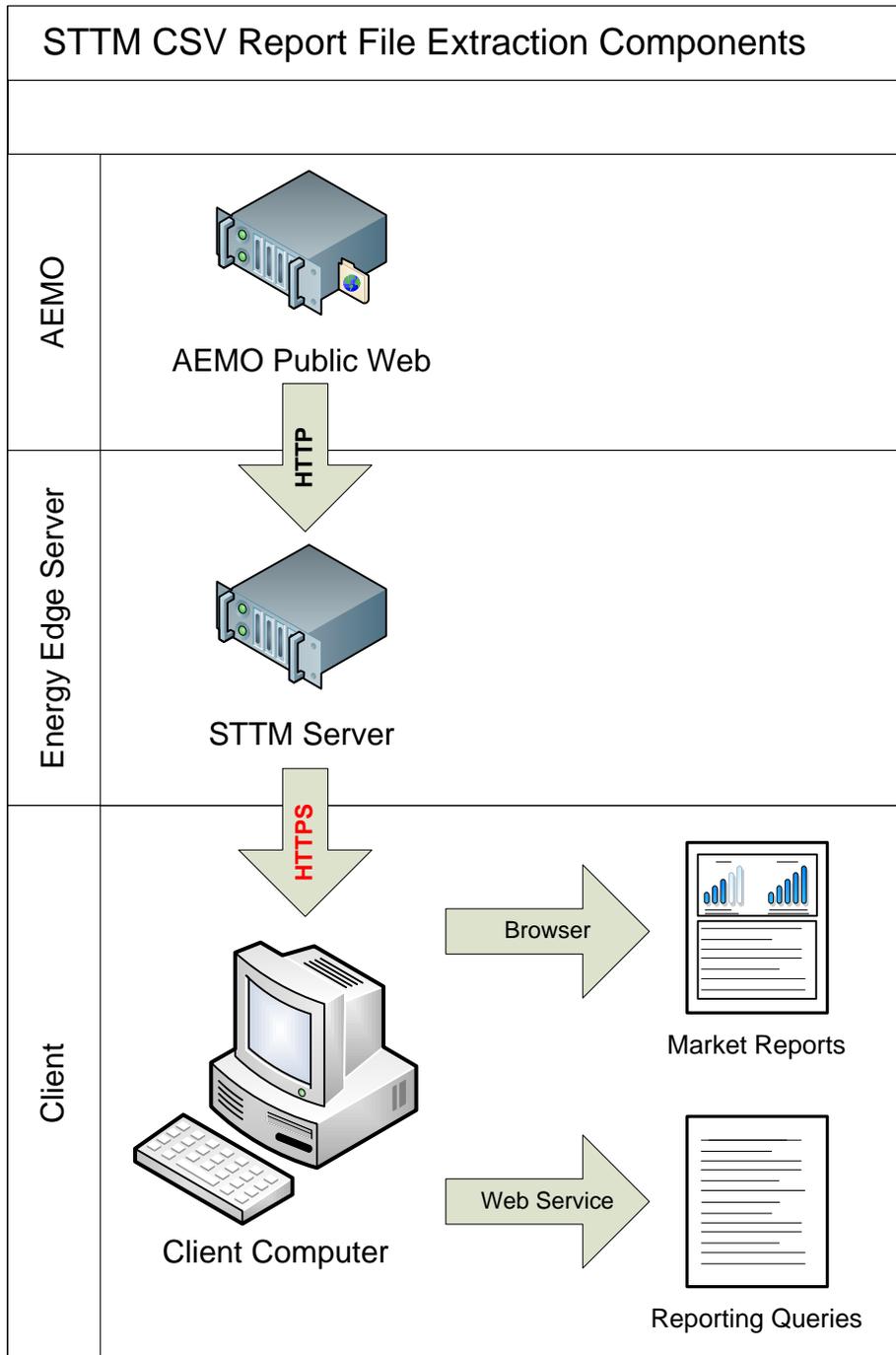
Site Installed STTM Data Server



Energy Edge will install the FTP batcher and STTM Loader as services on your server. The services will poll to keep the database continually up to date.

Reports are generated from the database. Energy Edge supplies several default summary reports and the client can create additional reports.

Hosted STTM Data Server

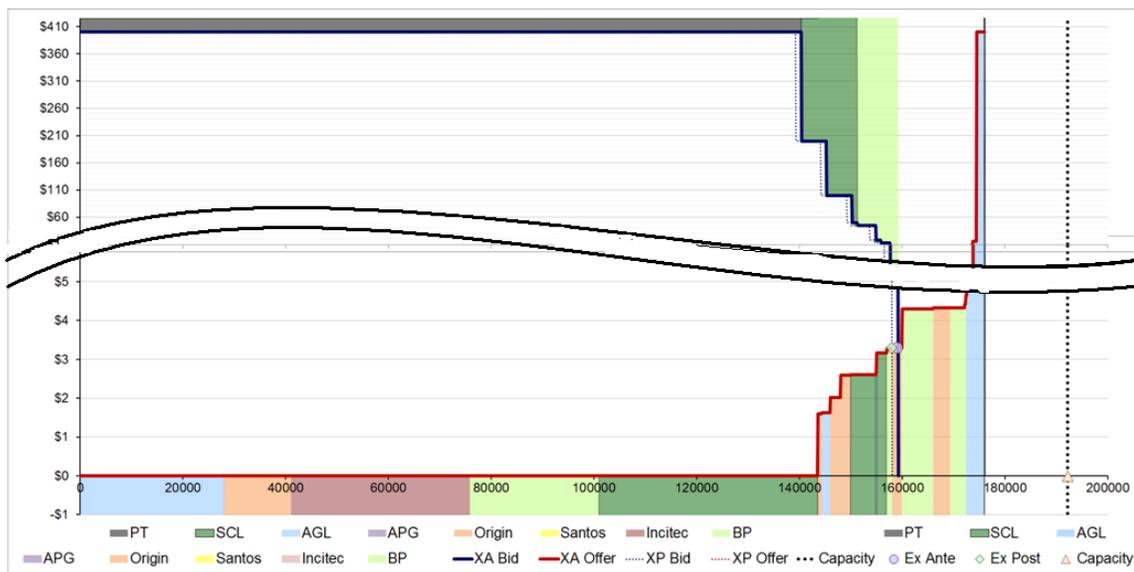


Energy Edge maintains the STTM database with public data available from AEMO. Clients of Energy Edge who subscribe to the *STTM Data Server* can access the data through a browser or directly via a web service.

The hosted *STTM Data Server* provides a cost-effective mechanism to access up-to-date and historical STTM data and reports.

Screen Shots – Summary Market Reports

Energy Edge has prepared several default reports on public STTM data to display daily or weekly market outcomes. Energy Edge offers additional services to design and build additional reports which are customized to your business operations and using your private market data.



Above: Market Summary Report of offers to supply and use gas on the STTM



Above: Market Summary Report of gas supply and usage, energy market service prices.

Energy Edge Fact Sheet

Energy Edge is an innovative consulting organisation that specialises in commercial and market risk management services and business activities. Energy Edge helps clients in utilities to meet their needs for managing commercial and market risk, trading requirements and exposures to environmental and energy costs.

The Energy Edge team has a combination of financial and commodity market experience through the full spectrum of trading and risk management areas, commercial and corporate finance activities. This breadth and depth of experience combined with extremely strong commercial, analytical, mathematical and software development skills forms the base from which Energy Edge provides a range of consultancy services to entities directly and indirectly impacted by energy, environmental and other commodity markets.

Recent Projects: Some recent projects undertaken by Energy Edge include

- Designing, developing and implementing pricing and risk management software tools in energy markets
- Developing and installing contract management software for urban water market settlement and invoicing
- Implementation, design, configuration and testing of third party software across front office, middle office and back office processes
- Commercialization strategies and feasibility studies for gas and gas generation projects
- Due diligence work for major utility acquisitions
- Valuation of real options embedded in gas supply agreements
- Enterprise wide reviews of carbon risk and opportunities
- Policy and procedure reviews and

Trading and market risk management

- Trading strategy development
- Portfolio optimisation
- Training
- Market research and surveys
- Policy development and reviews
- Risk identification and measurement services

Commercial Advice

- Assistance in due diligence processes
- Assistance in business plan development
- Analysis of commercial implications arising from regulatory or market changes
- Competitor analysis under different market structure scenarios
- Enterprise Wide Services
- Treasury risk management services
- Assistance to Internal audit teams
- Fitness for full retail competition

- Review of business risks and their correlations with other markets
- Development and implementation of Trading and Risk Management functions for emerging energy companies

Systems and Software

- Development and installation of a Water Contract Management system.
- Development and implementation of customised analytical and pricing tools
- Development and installation of the Energy Edge proprietary trading and risk management software *Market Edge*.
- Project management of systems and software projects
- Retrospective documentation, standardisation and process management for ad-hoc in-house systems and tools.

Environmental Markets

- Market structure advice
- Policy advice
- Modeling of environmental markets, price forecasts and assessment of commercial implications
- Assistance in registration and accreditation processes
- Environmental product strategy development
- Enterprise wide carbon risk assessments and management planning

Team Biographies

Details of the Energy Edge team can be found at the website: www.energyedge.com.au

More Information

Energy Edge offers consulting and software services for the STTM and broader energy trading. Contact us for:

- Standard or tailored training on the STTM
- Project Managing or reviewing your readiness for STTM trading, operations, settlements and risk management
- STTM trading, monitoring and reporting system scoping or reviews

For more information on the STTM regulations, visit the market operator website www.aemo.com.au

For more information on the *STTM Data Server* software or Energy Edge's other services visit www.energyedge.com.au or alternatively phone Angus on 0419 739 260 or send an email to info@energyedge.com.au