

TRUEENERGY

The application facilitates utility broker integration with large electricity and gas suppliers. The system enables efficient end-user registration with utility supplier as well as account management and bill payments.

The system ensures full automation enabling a small team of employees to handle numerous utility broker clients.



BUSINESS BENEFITS

- End users can quickly and effortlessly register with gas and electricity suppliers;
- The broker is capable to service numerous end-users and manage their meter readings, service, and payments;
- Automation of connecting and disconnecting users from the supply;
- Enabled reporting: generation of utility consumption reports and payment reports;
- Full integration with broker's billing system including automatic flow of data in both directions.



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CLIENT'S REQUIREMENTS FIRST HAND

“ I wanted an application that would establish efficient cooperation between utility (gas and electricity) suppliers and my utility broker company. The core purpose of the system was maximum automation that enabled a small team of employees to handle large data volumes and numerous customers. The system was required to work 24/7 and have an intuitive user-friendly interface. Security was a big concern since secure access to sensitive data was a must. I also required automatic report generation to enable data driven decision making.

CEO of Tru Energy, Daniel Cohen

Client1st TEAM WAS TASKED WITH



Turnkey development
of a web-application



Integration with utility supplier`s
computer systems



Establishing quick and stable
data exchange between
multiple company applications
deployed over a number of
servers



Automatic data validation

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Client1st SERVICES RENDERED

- ✓ Business analysis
- ✓ UX design
- ✓ Frontend and Backend development
- ✓ Setup and launch of the application on AWS
- ✓ Technical support throughout all development stages
- ✓ Ongoing application upgrades

INTERFACE TEMPLATES DESIGN



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TECHNICAL CHALLENGES

- 1 The team had to research a complicate set of technical specifications provided by the utility suppliers to ensure the application's compatibility with their software. As it often happens during the initial phases of greenfield projects the requirements tended to change however despite these difficulties the team delivered the product on time.

The Client1st team selected a technology stack that facilitated flexibility and quick adaptability to

- 2 Client1st experts designed and developed the application that ensures data security and incorruptibility. The app enables users to receive, process, and send information to utility

- 3 Automatic data validation at every touch point was among the most critical requirements. The system was supposed to ensure data integrity and check for before transferring it to suppliers' or broker company's servers. Extra data validation was necessary before merging it with the information available in the company database.

The Client1st team established automatic XML files exchange between companies' servers, including xml message ingestion, data validation, data parsing, error report generation, and error reporting.

This requirement was fulfilled through the use of several libraries and technologies:

- Data transfer was based on an FTP library;
- Server and process clusterization enabled rapid data processing under single-thread conditions;
- Data validation rule based system was also put in place.

These solutions ensured rapid and precise handling of large data volumes.

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Technology Stack



Frontend

React.js + Redux



Backend & Database

NodeJS, Express



External services

**Amazon Web
Services (AWS)**



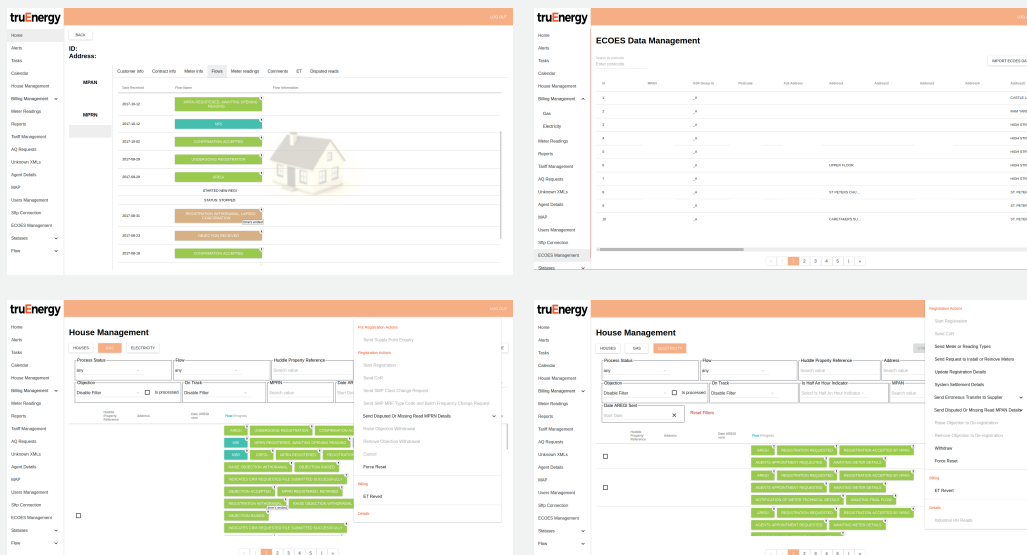
Deployment

Docker, GitLab CI

CORE FEATURES

- ✓ Electricity and gas end-users registration for personal and commercial data
- ✓ User-submitted data validation
- ✓ Integration with company internal systems
- ✓ Key events notifications
- ✓ Flexible entitlement model for different user levels
- ✓ Meter readings processing
- ✓ Client invoicing
- ✓ Reporting

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Client1st TEAM



- Business Analyst - 1 (part-time);
- Full stack developer - 1 (full-time);
- Full stack developer - 2 (part-time);
- Project manager - 1 (part-time).

PROJECT IMPLEMENTATION TIME



Web-application - 3,200 hours. New features are still being added.

TESTIMONIALS



The app developed by Client1st implemented all of my requirements. It's a business ready to go. The finished app allows our small team to manage large data volumes which is crucial at the early stages of the company's development. The team fulfilled all tasks in time. As the business develops we are still working on new features and upgrades. I appreciate and value the high-quality results delivered by the Client1st team.

CEO of Tru Energy, Daniel Cohen

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