



Power Price Vis and Prediction

Achieved:

- Real-time Power Price Visualization
- Future Power Price Prediction

Goal:

- Support Power Consumption Industry Site Selection
- Monitor Market Benefits
- Ease of Private Investment
- Increase Power Price Transparency
- Provide Data and Graphic Tools for Research

Technology Map:

Real-Time Data
Scraping
& Pre-Processing

- **Tech:** Python Request, Json, Threading Lib
- **Functions:** Website Data Scraping, Raw Data Re-formulation, Historical Data Management

Data
Representation
& Visualization

- **Tech:** Flask, D3 Lib, Google Map API, Interactive Vis
- **Functions:** Zooming, Panning, Click, Navigation, Focus + Context, Overview + details

Prediction

- **Tool:** Python, R, HighChart(API)
- **Methods:** Image Processing, Wavelet Decomposition, Stability Analysis, Cross Validation

Deployed on Amazon AWS