PowerMarket Market Instructions

Starting a Market

To begin, visit http://people.tamu.edu/~weit1/ to access the PowerMarket Client. By default, the webpage redirects to the client side first, so in order to begin a market, click on the "Market" tab, as seen on Figure 1.
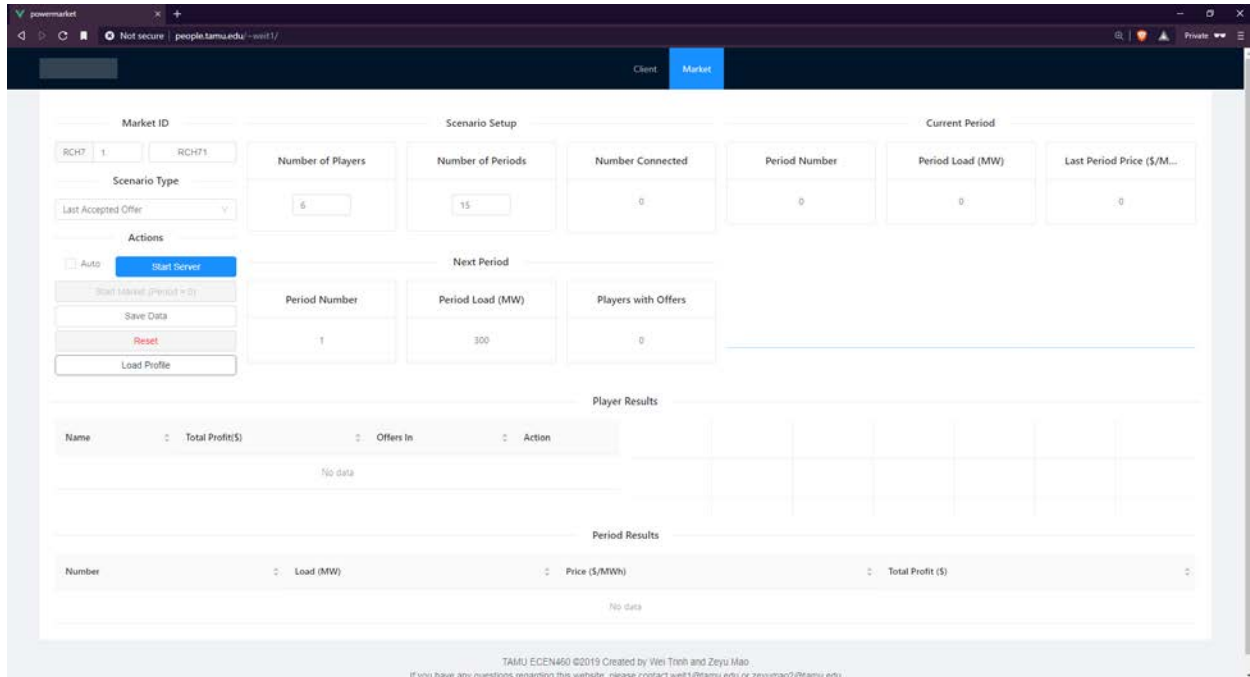

Figure 1: Market Window on Startup

Market Actions

Figure 2: Market Actions

The market operator has a variety of tools they can use:

Market ID

Market IDs are unique identifiers for your market. Upon reloading the page, you are assigned a random 4 letters for each market, along with a number. You can set the number to add another unique identifier to your market.

Scenario Type

You can choose either a Last Accepted Offer or Pay As Offered market type.

Actions

There are a few actions market operators can take:

- "Start Server" starts the server and allows users to connect.
- The "Start Market" button allows you to start the market, along with each following period.
- "Save Data" allows you to save all the relevant data from the market simulation.
- "Reset" will reset the market to Period 1.
- "Load Profile" allows you to upload your own load profile for users to bid on.

Scenario Setup Cards

The Scenario Setup allows you to control how many players you would like to have in your market, along with how many periods you want your market to run for. It will also let you know how many players have connected to the market.

Figure 3: Scenario Setup Cards

Next Period Cards

The Next Period cards tell you what the next period number will be, along with what the load is. It will also tell you how many players currently have offers in, so you know when to start the next period.

Figure 4: Next Period Cards

Current Period Cards

Figure 5: Current Period Cards

The current period cards give you the current period number, along with how much load your participants are trying to serve. It also tells you the clearing price of the last period. You may notice a solid blue line below these cards, which tells you how many messages are being sent from the client to the market. Flat lines imply that during that time, there are no messages being sent, but the example image below shows what happens when messages are being sent to the market from the client.

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Player Results

Player results allow you to track your players, their total profit, and whether or not they have submit a bid. The plot on the right shows the evolution of each players period profit.

Figure 6: Player Results

Period Results

The Period Results show you each of the periods, along with their corresponding load, what the clearing price was, and how much money was made by all participants for that period.

Period Results

Number	Load (MW)	Price ($/MWh)	Total Profit ($)
1	200	24	800
2	267	35	3335
3	300	43	5700
4	317	43	5751
5	283	40	4800

Figure 7: Period Results

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