

CFC Player Guide

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"CurrentForCarbon" Real-time Demand Response Gaming

Player Guide

Setup

The homeowner installs “player agent” software on a new or existing personal computer and registers with the game administrator. After activation and startup, the player agent runs in the background awaiting the start of a game. The homeowner can activate, start, stop, and deactivate the player agent at any time.

Playing Game

When the administrator starts a game event, the player agent is automatically triggered, and the homeowner is notified by text message. The player agent monitors power usage and can automatically control smart home devices such as lights, thermostats, and electric vehicle charging. The homeowner can also manually control smart home devices. At the end of the game, the homeowner is notified of the results by personal computer voice and text message.

The player decreases power usage during the time interval the game is active, which can be from 20 minutes to 4 hours. Using a smart phone or voice assistant, such as Alexa, the player controls devices in the home at the beginning and end of the game. Initially these can be manually controlled but voice scripts can be setup to control devices automatically.

At the end of the game event, points are awarded based on the actual change in the average watts during the game interval compared with the average watts in

the interval of the same duration immediately preceding the game interval. At the end of the game, average power is calculated, and awards are stored in a ledger that is accessible by both the game player and game administrator. Opaque identifiers and signatures are used to protect privacy and security. The game administrator acts as referee and has the option of invalidating a game result if a nefarious player tries to "game" the system or if the result is found to be otherwise invalid.

Future

Many more award and social media programs can be added as the player network expands. These include game winners, an award pool for the top players, a leaderboard, tweet hashtags, Reddit subreddits and Facebook groups, to name just a few.