National Electricity Operation

'Design a game to help understand how a National Electricity Operator works'

Background

Our client is a National Electricity Operator. The company guarantees the security and quality of the electricity supply by managing an extensive network of electricity infrastructures and facilities.

Its role consists of maintaining the balance between generation and consumption, it produces the electricity demand forecasts, oversees the operation of the generation facilities and manages the transmission facilities in real-time, constantly ensuring that scheduled generation in power stations matches consumer demand. Should a difference arise between the two, it sends the appropriate instructions to the power stations to increase or reduce their output.

One of the key activities is to facilitate the adjustment of the generation schedules resulting from the day-ahead and intra-day electricity markets to the quality, reliability and security requirements of the electricity system.

The challenge

The **activity and challenges of a National Electricity Operator are not well known by electricity consumers** while this activity is key to ensure the wellbeing of individuals and needs of industries and services.

What the client is looking for

Our client envisions a game around "electricity system operation" would help to gain a broad understanding of the importance of their role. Therefore, we are looking for the design of an engaging game to serve for this purpose.

The game should consider related Electricity System features such as:
- Conventional (nuclear, thermal…) and Sustainable (Hydraulics, Eolic, Solar…) generation systems and self-generation systems (Solar)
- Consumption points such as big and small cities, industries…
- Electricity grid, including high voltage network transmission.
- International exchange according to contracts and needs.

Electricity generation and consumption depends on many variables, such as weather (e.g. air-conditioning use during summer periods or wind intensity for Eolic generation), events (football or any other entertainment), and many others.

These variables should be considered for a realistic game proposal.

This tournament will have the following rounds and submissions:

First round

Up to 5 word pages including
- Overall description of the proposed game and high level requirements
- How do you propose to make this game engaging for the general public
- Variables and associated mathematical models for simulation

Second round
- Functional definition of the game through Use cases. Use cases describe how the users will play and interact according to the learning objectives
- Proposed scoring for the users
- Type of proposed styles and illustrations (draft wireframe)

Third round
- Clarifications on phase 2 submission
- Complete list of requirements for game development

Evaluation criteria

Submissions will be assessed according to the following criteria:

- Learning experience for the user
- The game should be engaging, attractive for the user
- Realistic with the National operation activity

Timeline

This is a 3 rounds tournament:
- 1st round: 6 weeks + 3 week for evaluation
- 2nd round: 3 week + 3 week for evaluation
- 3rd round: 2 weeks + 2 week for evaluation

The Prize

9.000 € cash prize for the winner

Confidentiality and Intellectual Property

According to General Terms & Conditions