# Wind Turbine MOOC game, 27-11-15 meeting minutes

Present: Carlos, Rene, Rody, Danika, Raphael, Kangqi, Panos, Ruoqing, Rick

In this meeting we discussed the game design document the game dev team published earlier this week. Many different topics were touched on during the meeting, I hope I got everything.

Conclusions:

* Turbine Customisation will be discrete, to simplify the implementation of the physical models. This means that the player can select from a couple of pre-specified options for every customizable part of the turbine. The cost and performance ratings of all these components can be made up by the dev team, to be adjusted by the commissioners if necessary. Accuracy is not important right now, it’s just a proof of concept. Nils is available for help in this regard.
* The height of the terrain definitely influences the power output of a turbine, this needs to be in the game. Different environments like trees etc could also influence this. The Dev team will discuss the specifics of this with Nils.
* The Dev team will create an overview of each feature in the game, and an estimate of how expensive it is to implement.

Suggestions:

* It was suggested that amount of blades, length of the blades and blade material could all be merged into a single category, where players select from some preset blade configurations.
* It was suggested that every turbine could have the following parameters:
  + Installation cost
  + Turbine Cost
  + Power performance (array of power output values for different wind speeds)
  + Age/Age since last maintenance
  + Degradation/durability
  + Structural performance (how high a wind speed it can withstand without failing)
* The proposed environmental events aren’t directly useful concerning the learning goals, with the exception of a storm. Earthquakes and lightning strikes can be taken out. These storms will not be random to make sure a player’s score is not influenced by luck.
* 4 Chapters is a lot of work. It was suggested that they are merged by introducing more new gameplay mechanics at once, to reduce workload.
* It was suggested that new gameplay mechanics or customisation options related to the learning goals could be unlocked through a short ‘examination’, requiring the player to have a bit of knowledge on the subject before using it. It’s up to the dev team to implement and test this, to see if it doesn’t interfere with the gameplay experience.
* It was suggested the leaderboard is expanded to show not just the total score, but also score on individual elements. This could just be integrating the star rating for the different categories. (placement, design efficiency etc.)

Remarks

* The city sewer system is not critical, it can be dropped if the time pressure is too high.
* Maintenance operations to turbines shouldn’t be mandatory. A player can decide not to repair a broken turbine if he wishes so.
* The design document made no mention of external learning material. This will still be linked to in the game. (if it’s made available)
* The incentive to look up and learn the external material comes from slowly increasing the cost of designing new turbines, which rewards ‘getting it right the first time’.
* Turbines are usually classified in terms of power output, not size. Power output is however closely related to the area. Generally, small: 1-100kW, medium 101kW-1MW, Large >1MW.