Appendices

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Appendix I- Moscow User Stories

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Story | Description | Forecast/ Simulation | UI/Backend/API/ Data Storage | MoSCoW |
| 1 | I want to see a breakdown of energy production statistics | Displayed with either icons or with graphs | Forecast/ Simulation | UI/Backend/ API | M |
| 2 | I want to be able to see statistics for a specific region/county | Interactive map, either clickable map or a dropdown menu to select viewed regions | Forecast/ Simulation | UI/Backend/ API | M |
| 3 | I want to be able to adjust timescale | Can edit from hourly to weekly forecast | Forecast | UI/Backend/ API | M |
| 4 | I want to be able to adjust timescale | Can edit from daily to monthly projections | Simulation | UI/Backend | M |
| 5 | I want to specify energy types used for statistics | Can select from wind, solar etc. to be displayed | Forecast/ Simulation | UI, Backend | M |
| 6 | I want to specify weather input values | Change rain, sunlight hours etc. for simulations | Simulation | UI, Backend | S |
| 7 | I want to be able to see previously run forecasts/ simulations | See all previously run forecasts/ simulations | Forecast/ Simulation | UI/Backend/ Database | S |
| 8 | I want to be able to update and remove previously run analysis | Fully change all aspects of previously run analysis | Forecast/ Simulation | UI/Backend/ Database | S |
| 9 | I want to be able to save forecasts/ simulations | To be able to save a record of the simulation that has been run | Simulation | UI/Backend/ Database | S |
| 10 | I want to see long term projected trends | To be able to see a list of pre-set likely scenarios | Simulation | UI/Backend/ Database | C |
| 11 | I want to see a list of all plants used for calculations | To be able to see all plants in system | NA | UI/Backend/ Database | C |
| 12 | I want to be able to add and remove power plants to see effects from its contribution | Can add a new power source to a region to see how this would affect future energy production | Forecast/ Simulation | UI/Backend/ Database | C |
| 13 | I want to see the map change with my settings | UI map is updated using user settings | Forecast/ Simulation | UI/Backend | W |
| 14 | I want to be able to make an independent weather API call | Make a weather API call with values independent of forecast to show users how it works | Neither | UI/Backend | W |
| 15 | I want to be able to register and login to the system | User can create an account to manage privately stored data | Neither | UI/Backend/ Database | W |

Appendix II- Full ER Diagram

Diagram, table

Description automatically generated

Appendix III- Links To External Resources

* Backend Git Repo:
* Frontend Git Repo:
* Postman demonstration video:
* Website demonstration video:

Table

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Graphical user interface, text

Description automatically generated

Appendix VI- User Testing Responses