2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

Sahana.S

Unnamed area

The wind energy capacity model involves converting wind speeds at hub-height to power output using manufacturers' power curves for single turbines

The wind energy model requires wind speed at hub-height (Whub) as an input, which is then fed through the power curve to estimate capacity factors.

gayathri.P

Unnamed area

To reduce any bias in the data and bring the capacity factors in line over the historical period, a bias correction has been applied to the turbine power curves before the climate model Whub data are applied to them.

This bias correction is calculated by selecting the cut-in speed (Scut — in), the rated capacity speed (Srated), and the cut-out speed (Scut — out), from the power curve.

yuvetha.M

Unnamed area

The impact of climate change on low-wind power onshore events is shown in Figure 7, where the average of the ensemble results shows an increase in the number of events in future scenarios compared to the historic period for the full year and for all seasons except winter. The increase in low-power events is largely due to the decrease in low wind speeds. Analysis of the low-power events finds that in the historic period there are no events due to wind speeds above cut-out speed.

ANIS SWEDHA.D

Unnamed area

High-power or near-rated-power events are defined as the consecutive period in which each hour is above a threshold of 90% capacity factor. Overall, there is a projected decrease in the number of near-rated-power events in future scenarios compared to the historic period, consistent with the projected decrease in overall wind energy generation.

Soumiya bala.S

Unnamed area

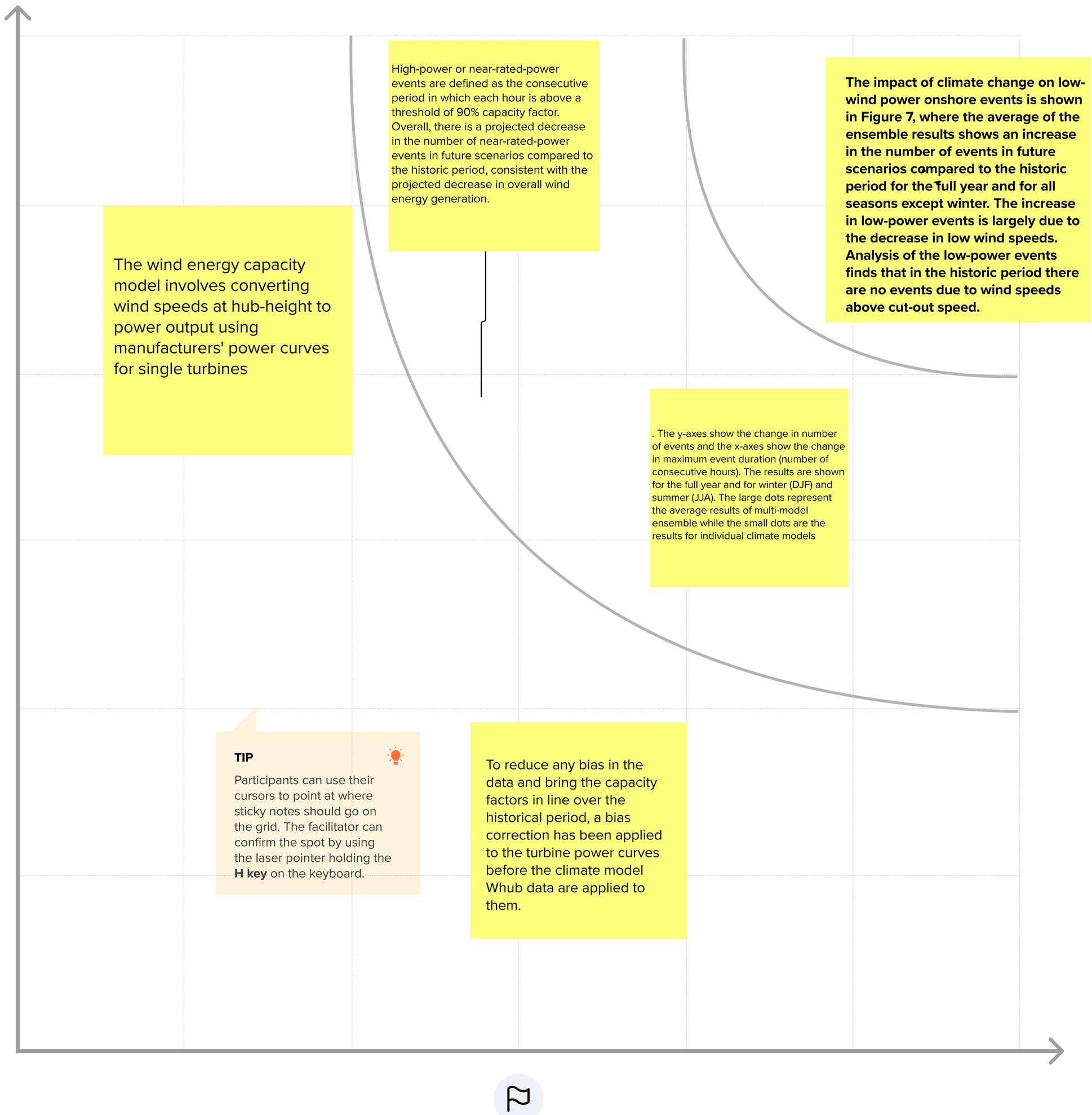
The changes in onshore low-power events (<10% capacity factor for at least 24 consecutive hours) in future scenarios for 2081–2100, RCP 4.5 (blue) and RCP 8.5 (red) relative to the historic period (1981–2000).
. The y-axes show the change in number of events and the x-axes show the change in maximum event duration (number of consecutive hours). The results are shown for the full year and for winter (DJF) and summer (JJA). The large dots represent the average results of multi-model ensemble while the small dots are the results for individual climate models

4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes



Importance

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?