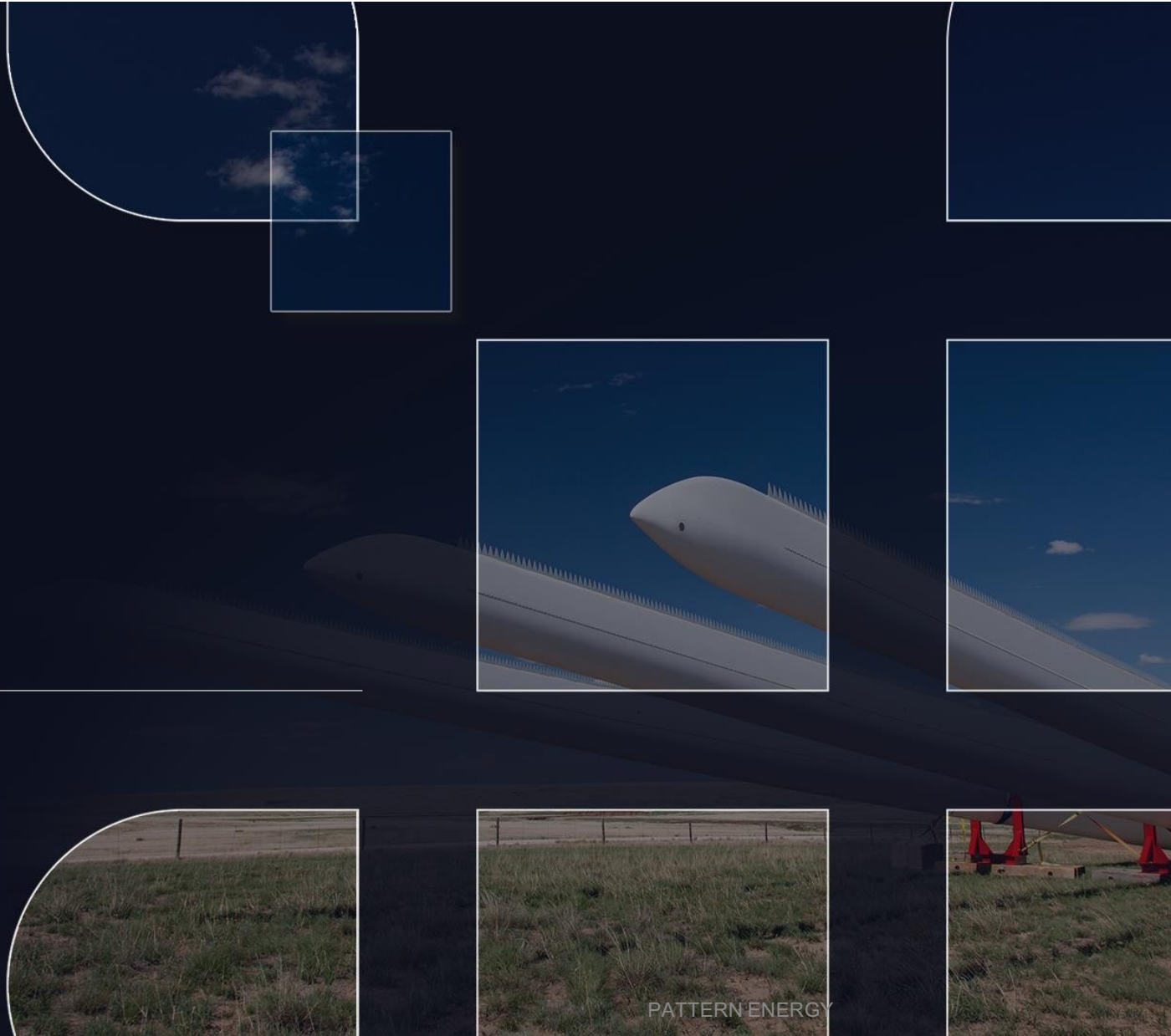




# WindSim Accelerator

2023 Update



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### *Background*

- Has worked with Renewables since 2006
- Experience from AWS Truepower (UL), BP, GE Power & Water, Fenice Energy
- With Pattern Energy since 2016, recently took over as team lead and WindSim lead user

# WindSim Accelerator

Overall Experience -  
Updated June 2023

***Pattern Energy participated in beta testing Windsim Accelerator in early 2022 and have actively been using the software since.***

## ***Successes of the Interface:***

- Easy access/login to WindSim Online interface. No issues accessing the site
- Calculation of Wind Fields on the cloud service has reduced the simulation running time for most cases
- Multiple users can run multiple projects simultaneously
- Project Dashboard has been updated since initial release. These updates have taken into account provided feedback, including editable input parameters within the dashboard and improved progress completion tracking
- Workflow process simple and easy to use
- Eliminates support from Pattern IT group
- When simulations fail (*completely or individual sectors*) it has been mostly straight forward to identify what is needed to fix

# WindSim Accelerator

Overall Experience –  
Updated June 2023

## *Less Successful Aspects of the Interface:*

- Only Wind Fields module is currently available
- Ran into problems running predefined wind direction sectors in desktop application and then failing in the Dashboard. A temporary work around was provided but did lead to failed runs. This might have been fixed in latest revision?
- Issues with maximum number of X and Y cells when running larger terrain grids
- We have had issues with the maximum number of cells being run with either GCV and PCGV and have limited run sizes accordingly (10M cells)
- Downloading completed runs can take long (3+ hrs)
- Licensing permission troubleshooting is still ongoing

# WindSim Accelerator

Overall Experience –  
Updated June 2023

## *Ideas for the Future Enhancement*

- Expand capabilities for larger projects with ability to use higher resolution input data (*terrain, roughness*)
- Add additional module support and download capabilities. It sounds like this will be included in future revisions which is great!
- Work towards removing desktop application all together to help alleviate licensing errors and wasted upload/download time