ASEC Hackathon

Competition 1

"*Your team has been hired by the board of Spanish ISOs (Independent System Operators) to provide assistance and consultation for the upcoming Spanish Annual Energy Conference. The board aims to provide a perspective on how weather patterns and locations affect electrical demand, price and load. As this conference hosts many individuals, stakeholders, and relevant partners, it is imperative that the data is visualized effectively, highlighting key insights in a clear, and easy-to-understand manner.*

Competition 2

Secondly, the board would like to receive your team's recommendation on an energy demand forecasting model that also allow ISOs to optimize pricing in the Day-Ahead and Real-Time Energy Markets (referred to as the "Multi-settlement Market). Multi-settlement Market being the main revenue source for ISOs, your team's recommendation should include an in-depth analysis & rationale on energy demand, pricing validation, and backtesting to cross-validate your team's predictive model(s).

BONUS: As the Spanish ISOs represent a large portion of your company's clientele, your team decides to WOW the client. With increasing awareness around climate change, provide a recommendation on how ISOs can optimize their energy demand/pricing model, while also reducing their carbon footprint (This recommendation may be qualitive, quantitative, or both. You may leverage external datasets to support your recommendation)."

Please choose ONE competition to attempt!

Prizes will be $1000/$500/$250 for 1st, 2nd, 3rd place respectively for both competitions!

Competition 1 - Visual

Categories	Weighted Points	Category Criteria	Feedback	Awarded Points
User experience	40	• Do the visuals clearly tell a story about the data? • Do the visuals clearly illustrate the results of your analysis? • Are the visuals easy to understand? • Are the visuals aesthetically pleasing? • Did the solution utilize correct types of multiple visualization techniques?		
Business Value	20	• What is the created value? • Can participants clearly explain this? Was value quantified?		
Visual Analysis	30	• Did the solution contain an interactive data visualization aspect (ex: PowerBI Dashboard)? • Did the solution present clear understanding of the provided data? • Did the solution present o descriptive analytics? o prescriptive analytics? o predictive analytics? • Did the solution provide a clear analysis of the data? • Was the primary objective of the question answered?		
Innovation	10	• Did the solution offer a new perspective on analyzing energy demand? • Did the solution provide more insight on the available data		

Total: __ / 100

Bonus questions possible points = 10
Awarded: ___

Competition 2 - Analytical

Categories	Weighted Points	Category Criteria	Feedback	Weighted Points
Analysis	30	• Is an explanation of data science methodology clearly stated? • Is the model analysis approach explained well? • Is a model performance summary provided? • Did the group try multiple models and compare performance? • Was the primary objective of the question answered?		
Code quality	30	• Was the code clear and concise? • Can this analysis be applied to a larger dataset? • Can this analysis be applied in a different context? • Does this analysis answer the proposed question? • Can this analysis be ran on a larger dataset?		
Business Value	20	• What is the created value? • Can participants clearly explain this? • Was value quantified?		
User experience	10	• Do the visuals clearly tell a story about the data? • Do the visuals clearly illustrate the results of your analysis? • Are the visuals easy to understand? • Are the visuals aesthetically pleasing?		
Innovation	10	• Did the solution offer a new perspective on analyzing energy demand? • Is this solution unique?		

Total: __ / 100

Bonus questions possible points = 10
Awarded: ___