Energy Prediction
Project Status Update

Project Code: ENJX2344J
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Project Status

| Stage	Description	Assigned	Status
1	Initial investigation of the meter readings	David	Underway
2	Baseline model using weather and building information	Chuck	Underway
3	Data conditioning and investigation	David/Chuck	Pending
4	Model refinement	-	Not Started

Meter Readings – Preliminary Findings

- Data appears to be contaminated with noise which may affect modeling quality.

- Efforts have been made to clean the data (examples in following slides)

Noise Character – Building: 922, Meter: 0

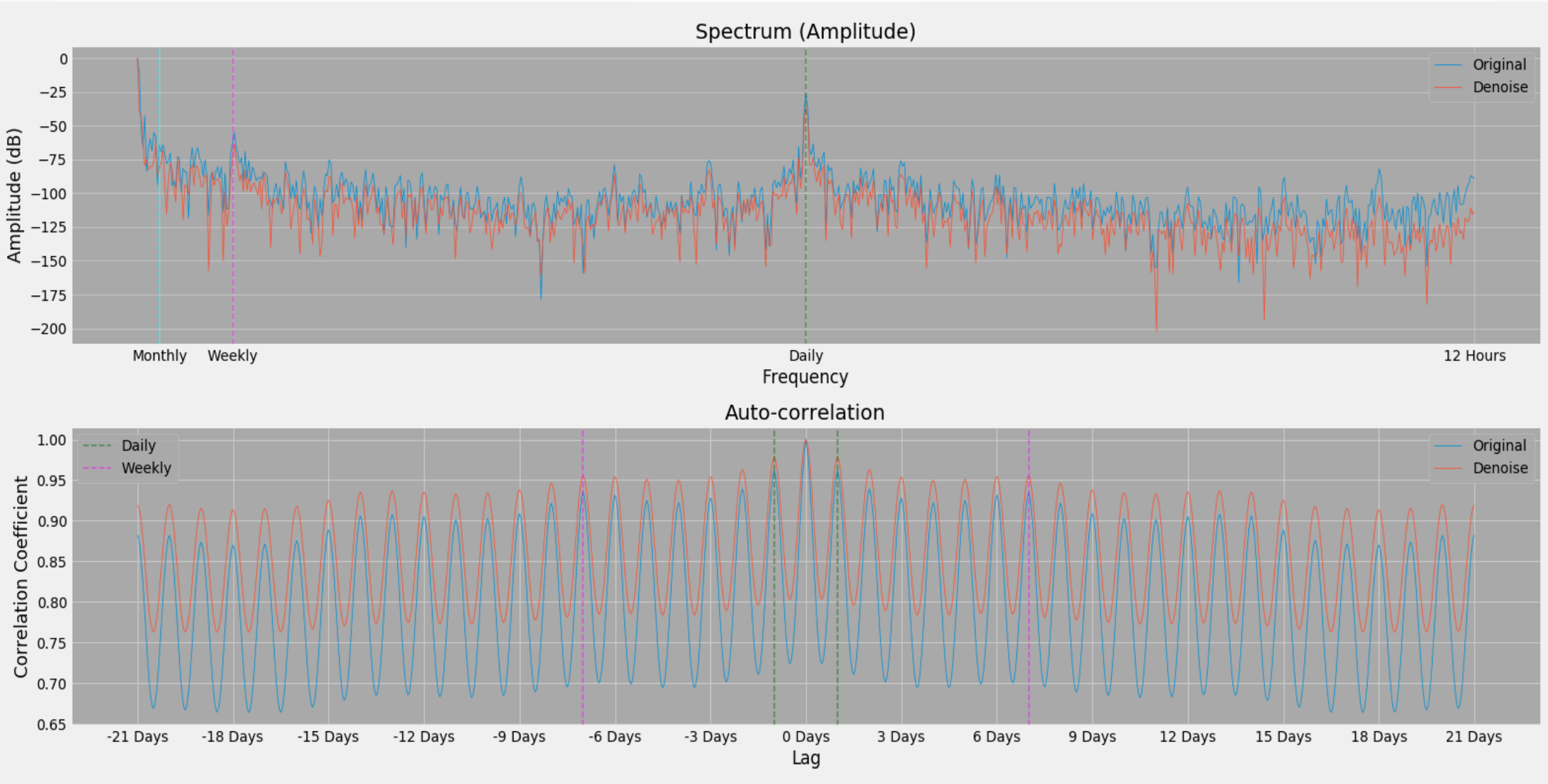Meter Reading, Building ID: 922, Meter ID: 0

Periodicity – Building: 922, Meter: 0
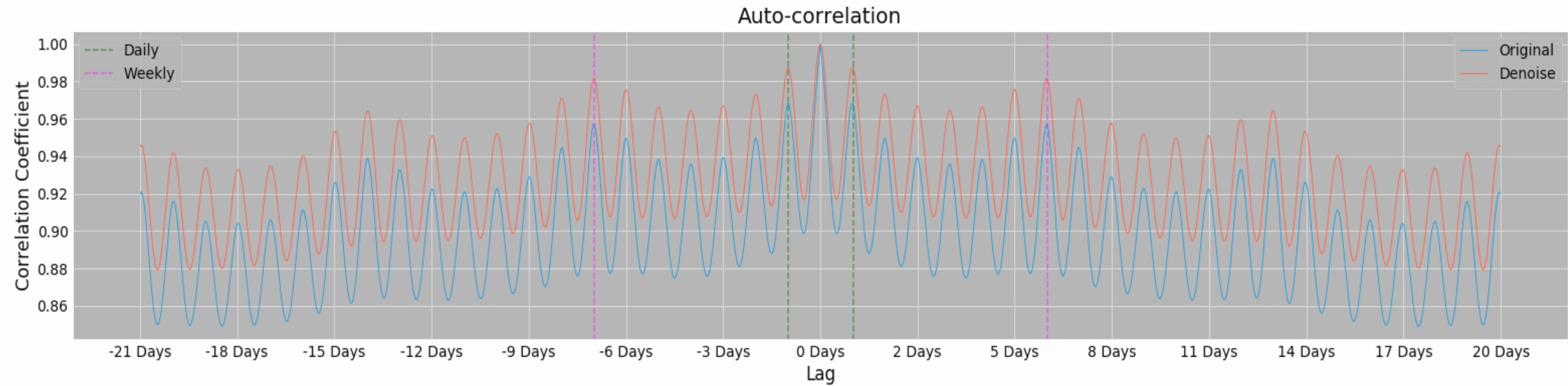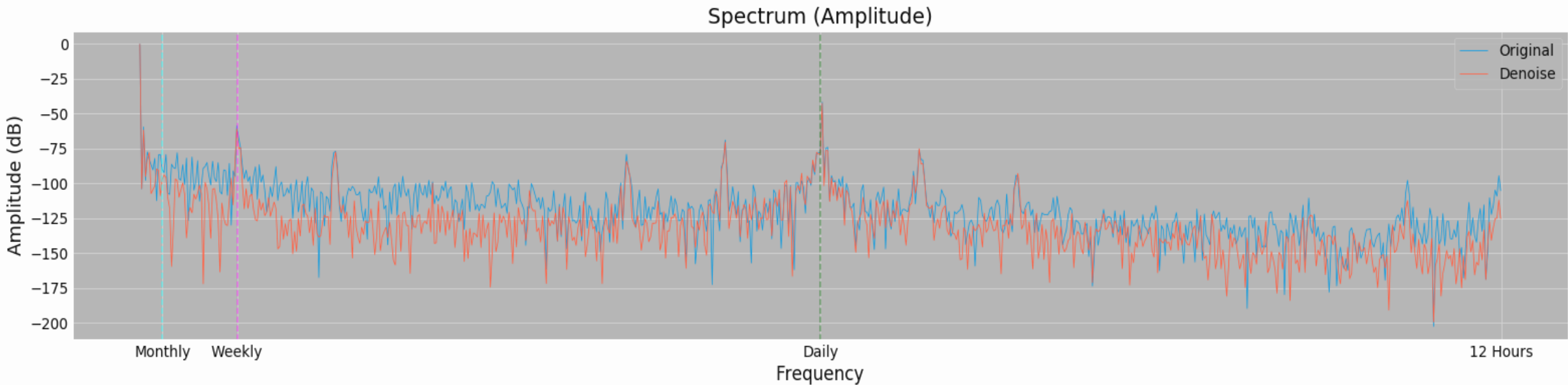
Noise Character – Building: 2, Meter: 0

Periodicity – Building: 2, Meter: 0

Comments - Denoise

- Initial QC of the denoise looks favorable.

- However, more investigation into impact of this step on predictions is needed (see appendix).

Comments - Periodicity

- Strong indications of periodicity within the meter readings.

- Test predictions based solely on the periodicity gives reasonable results.

Appendix

Baseline Modelling

Overview

- An initial baseline model (using the weather and building data) has been generated.

- The results are very favorable (beating the periodicity based model).

- However, when the denoise flow was added to the baseline, the predictive capability fell (close to the periodicity base model). So more investigation is necessary.

Baseline Predictions (Upcoming Year)

Predicted Meter Reading Before Denoise
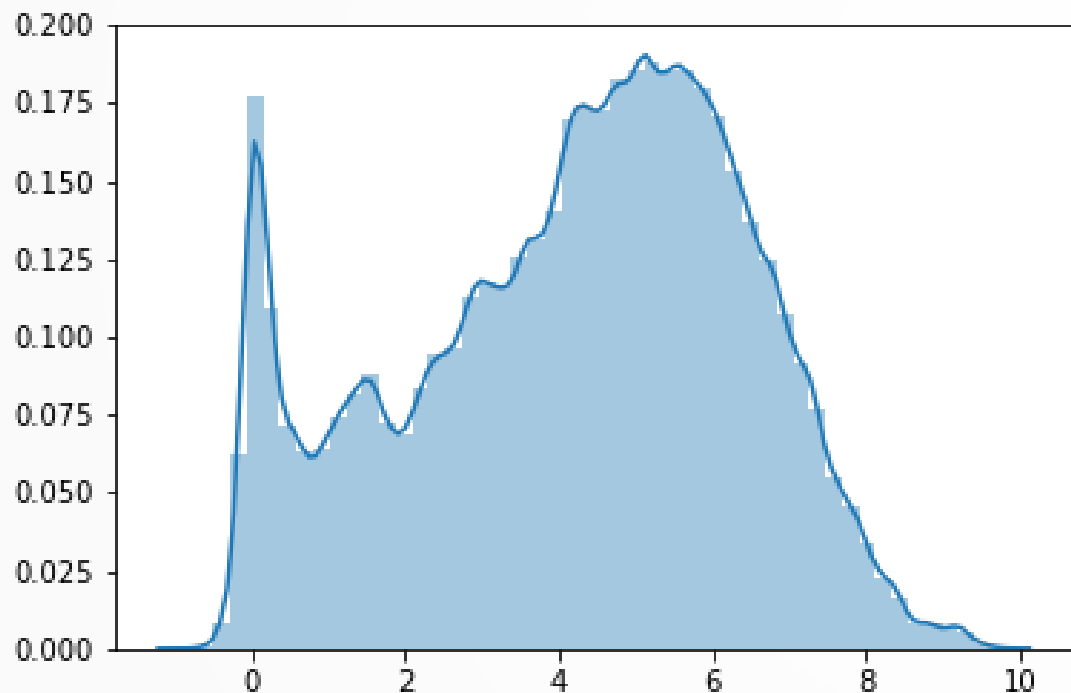
Predicted Meter Reading After Denoise