

Do Problems 12.5, 12.6, 12.9, 12.14, 12.15 and 12.17 in GOS.

(In 12.17, skip reworking 12.16, which is confusing because it's too easy: the errors just go to zero.)

WECC Frequency Response

Read the presentation at <https://www.wecc.biz/Administrative/07%20FRR%20Basic%20Concepts-%20Green.pdf>. What do you think is meant by the "Frequency Response Obligation" of a Balancing Authority? Explain in your own words.

Fun with CAISO Data

At www.caiso.com, click on Today's Outlook and look at the Demand Trend. Take a screenshot and note the date.

- (a) Visually estimate the load factor (average/peak power) for the day.
- (b) Visually estimate the largest discrepancy between the actual demand and forecast so far today.
- (c) Compare today's to yesterday's and tomorrow's forecast peak demand (by clicking the calendar icon in the upper left corner of the graph) and speculate what might explain the difference.
- (d) Look at the Net Demand Trend. What time of day do you think is most challenging for maintaining a constant grid frequency, and why?