canopy heat storage

I had speculated at this week's Science Meeting that canopy storage (in particular moisture) should be large to balance the surface energy budget. I've just run a quickee calculation from yesterday (a mostly clear-sky case). I simply linearly averaged the in-canopy measurements in this calculation.

I get that, at night, the canopy loses heat at about -20 W/m2. During the morning, the canopy gains heat at up to 50 W/m2. During the day, there are large changes, but the long-term average is zero, with a tendency for the top of the canopy to heat while keeping moisture constant and the bottom of the canopy to cool while gaining moisture. To first order, sensible and latent heat storage are about the same (each about half of the total storage) in the night and morning, and equal and opposite during the day. The average storage over the entire day was 0!

All of this seems entirely plausible to me, but it this doesn't explain the energy imbalance (not surprising from EBEX). Guess we'll have to hypothesize horizontal advection...