**Suplemental material**

Table S1 Site specific coefficient of determination (*R*2) and Root Mean Square Error (RMSE) of the regression between observed and estimated 8-days LE derived from BESS. GLDAS/NOAH and MERRA products. WSA is a savanna. IGBP is the International Geosphere-Biosphere Programme vegetation classification.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NAME8 | IGBM | LE-BESS | LE-MERRA | LE –GLDAS/NOAH |
| *R*2 | RMSE (W m-2)  | *R*2 | RMSE (W m-2) | *R*2 | RMSE (W m-2) |
| AU-How | WSA | 0.66 | 41.41 | 0.65 | 27.14 | 0.71 | 52.08 |
| AU-Ade | WSA | 0.69 | 38.39 | 0.37 | 36.57 | 0.66 | 39.36 |
| AU-Das | WSA | 0.72 | 31.25 | 0.55 | 42.10 | 0.63 | 46.58 |
| AU- Dry | WSA | 0.58 | 40.68 | 0.70 | 47.65 | 0.81 | 32.88 |