***Supporting Information***

# Power Plant Fuel Switching and Air Quality in a Tropical Forested Environment

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**Figure S1.** Maps of near-surface ozone concentrations for historic emissions (Case A), present-day emissions (Case B), and planned future emissions (Case C). The left column shows afternoon means across the study period. The right column shows standard deviations. See caption of Figure 3 for further information.

**Table S1.** Power plant information in the study region in each month of 2014. Power plants listed here are the same as Table 2. Plant generated power (MW) are described by fuel types, abbreviated as fuel oil (F), diesel (D), and natural Gas (G) (ELETROBRAS, 2014).

| Power Plant | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dez |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aparecida (G) | 126.6 | 128.1 | 147.3 | 137.5 | 130.9 | 130.4 | 132.6 | 130.7 | 118.1 | 124.4 | 128.3 | 107.5 |
| Aparecida (D) | 0.4 | 7.1 | 1.1 | 5.1 | 8.3 | 1.7 | 4.3 | 14.3 | 10.3 | 7.7 | 11.8 | 8.6 |
| Mauá / Electron (F) | 36.6 | 35.2 | 9.9 | 24.9 | 32.8 | 12.9 | 13.0 | 12.0 | 9.6 | 15.1 | 19.6 | 19.0 |
| Mauá / Electron (G) | 107.3 | 105.4 | 79.0 | 74.2 | 40.2 | 105.3 | 110.5 | 107.1 | 103.2 | 110.6 | 96.7 | 61.3 |
| Mauá / Electron (D) | 138.0 | 158.3 | 134.5 | 173.2 | 188.2 | 154.9 | 153.3 | 109.0 | 150.0 | 130.2 | 110.7 | 136.8 |
| Flores (D) | 40.0 | 35.3 | 33.1 | 41.4 | 52.6 | 49.4 | 46.6 | 28.4 | 40.1 | 35.6 | 44.7 | 49.4 |
| Cidade Nova (D) | 6.5 | 7.1 | 5.7 | 8.4 | 11.0 | 8.4 | 9.0 | 4.6 | 10.3 | 8.7 | 9.9 | 13.7 |
| São José (D) | 23.9 | 16.7 | 14.9 | 19.0 | 23.0 | 19.8 | 21.0 | 12.5 | 13.1 | 13.1 | 15.1 | 13.8 |
| Iranduba (D) | 18.7 | 19.9 | 17.6 | 23.1 | 33.1 | 29.0 | 24.1 | 17.5 | 23.2 | 19.4 | 17.5 | 20.0 |
| Breitener Tambaqui (G) | 59.9 | 61.5 | 62.0 | 61.5 | 63.3 | 61.6 | 62.4 | 64.2 | 62.1 | 61.7 | 62.4 | 60.6 |
| Breitener Jaraqui (G) | 61.7 | 61.2 | 61.2 | 61.2 | 62.1 | 62.0 | 61.6 | 63.2 | 61.7 | 59.2 | 60.9 | 61.6 |
| Ponta Negra (G) | 65.5 | 65.9 | 65.8 | 66.0 | 65.8 | 66.0 | 65.7 | 64.9 | 65.5 | 65.1 | 64.2 | 61.1 |
| Manauara (F) | 15.7 | 10.9 | 5.8 | 6.6 | 6.4 | 5.4 | 4.6 | 6.5 | 4.9 | 5.2 | 5.4 | 6.5 |
| Manauara (G) | 48.8 | 53.6 | 59.9 | 58.7 | 58.2 | 58.0 | 60.3 | 55.2 | 59.1 | 58.7 | 59.3 | 57.6 |
| Cristiano Rocha (F) | 20.8 | 24.1 | 11.3 | 10.9 | 18.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cristiano Rocha (G) | 45.4 | 41.9 | 55.2 | 55.3 | 44.3 | 69.2 | 69.8 | 69.1 | 70.1 | 69.6 | 70.9 | 69.5 |

## References

ELETROBRAS: Relatory of energy generation., in, edited by: Santos, T. F. d., Environment Departament of Eletrobras Amazonas Energia, 2014.

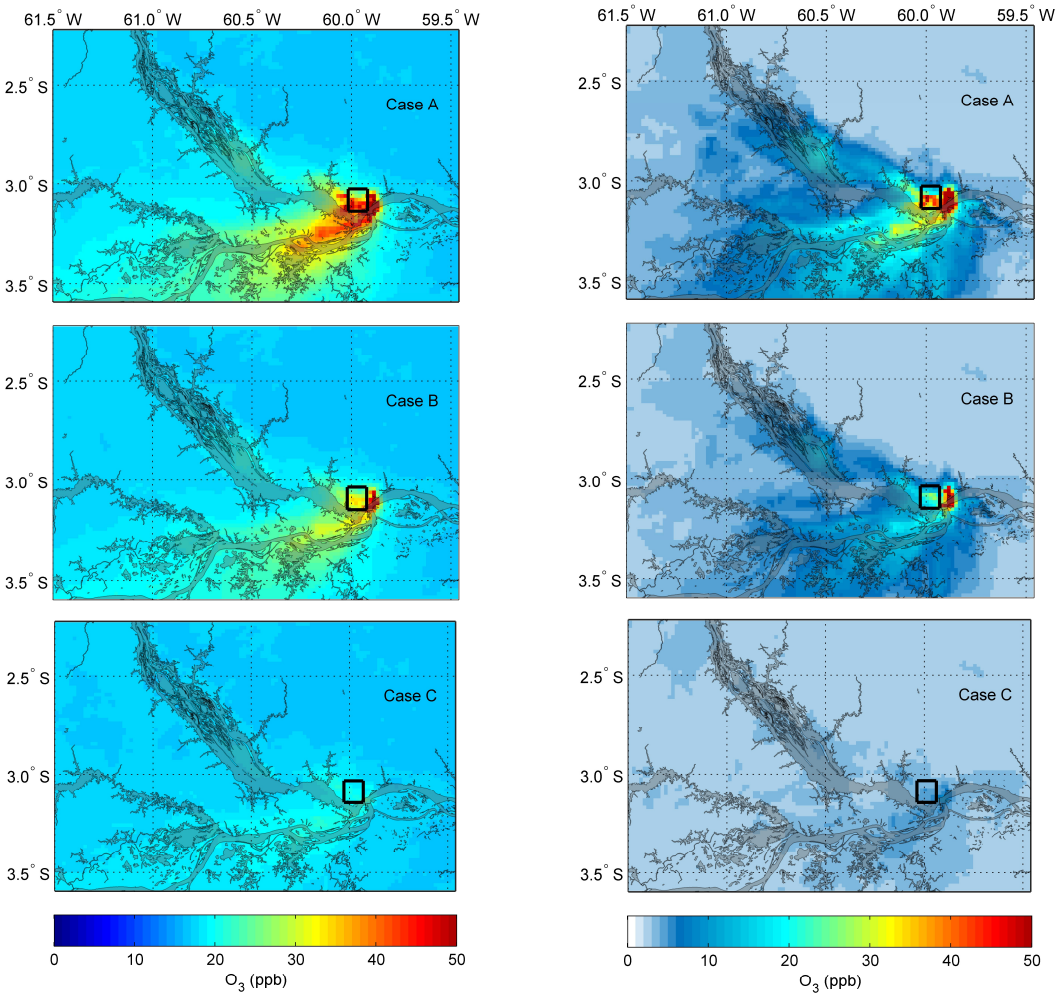
61.5° W
61.0° W
60.5° W
60.0° W
59.5° W
2.5° S
3.0° S
3.5° S
Case A
Case B
Case C
0
10
20
30
40
50
O3 (ppb)

Figure S1