

Supporting Information

Thermal integration of a flexible calcium looping CO₂ capture system in an existing back-up coal power plant

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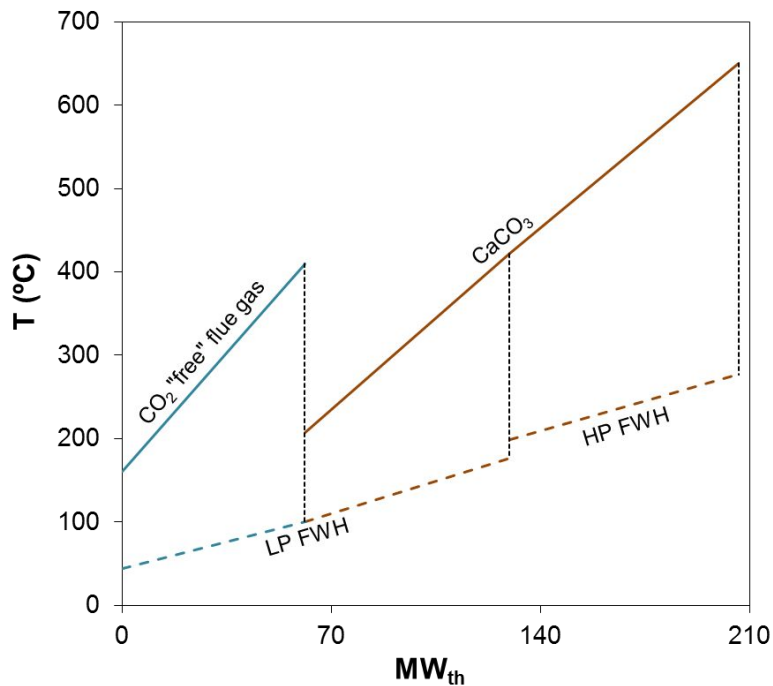


Figure S1. Composite curves of the heat integration of the CO₂ “free” flue gas (blue) and CaCO₃ (brown) streams from the carbonator block with the modified power plant supercritical steam cycle according to Figure 3. Solids lines correspond to the CO₂ “free” flue gas and CaCO₃ streams (hot streams) respectively and dashed lines to the steam cycle streams (cold stream).

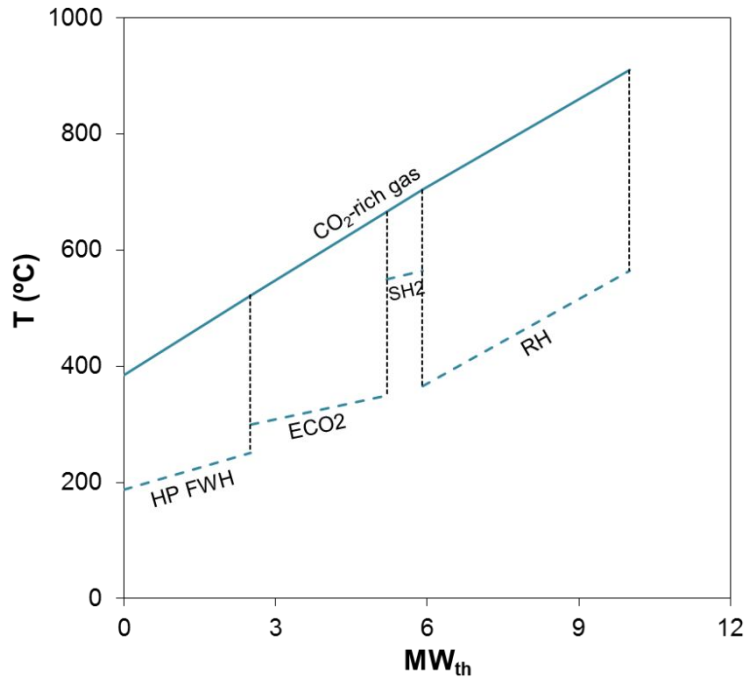


Figure S2. Composite curves of the heat integration of the concentrated CO₂ stream from the oxy-calciner block with the sub-critical steam cycle according to Figure 4. Solids lines correspond to the concentrated CO₂ stream (hot stream) and dashed lines to the steam cycle streams (cold stream).

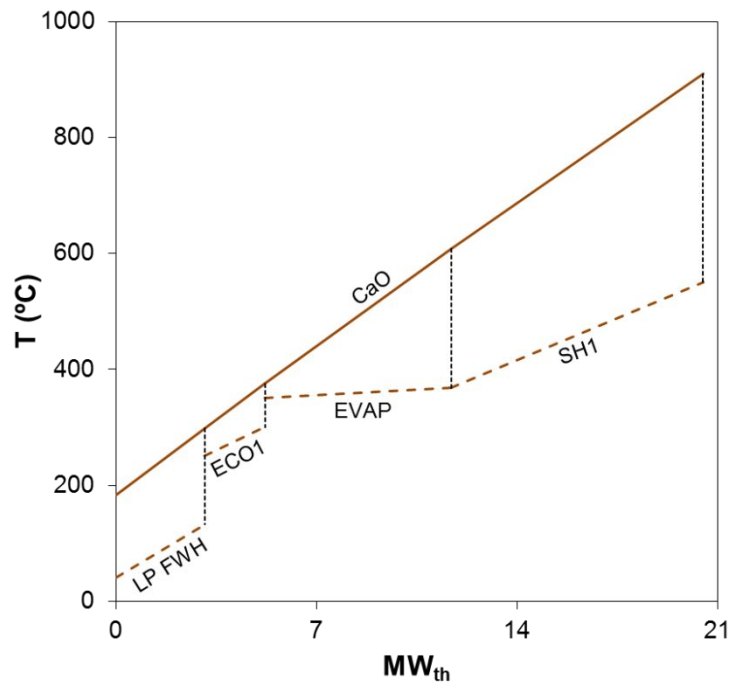


Figure S3. Composite curves of the heat integration of the CaO stream from the oxy-calciner block with the sub-critical steam cycle according to Figure 4. Solids lines correspond to the CaO stream (hot stream) and dashed lines to the steam cycle streams (cold stream).