Modelo de la Central Ciclo Combinado horario para SimSEE

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IIE - FING - ADME

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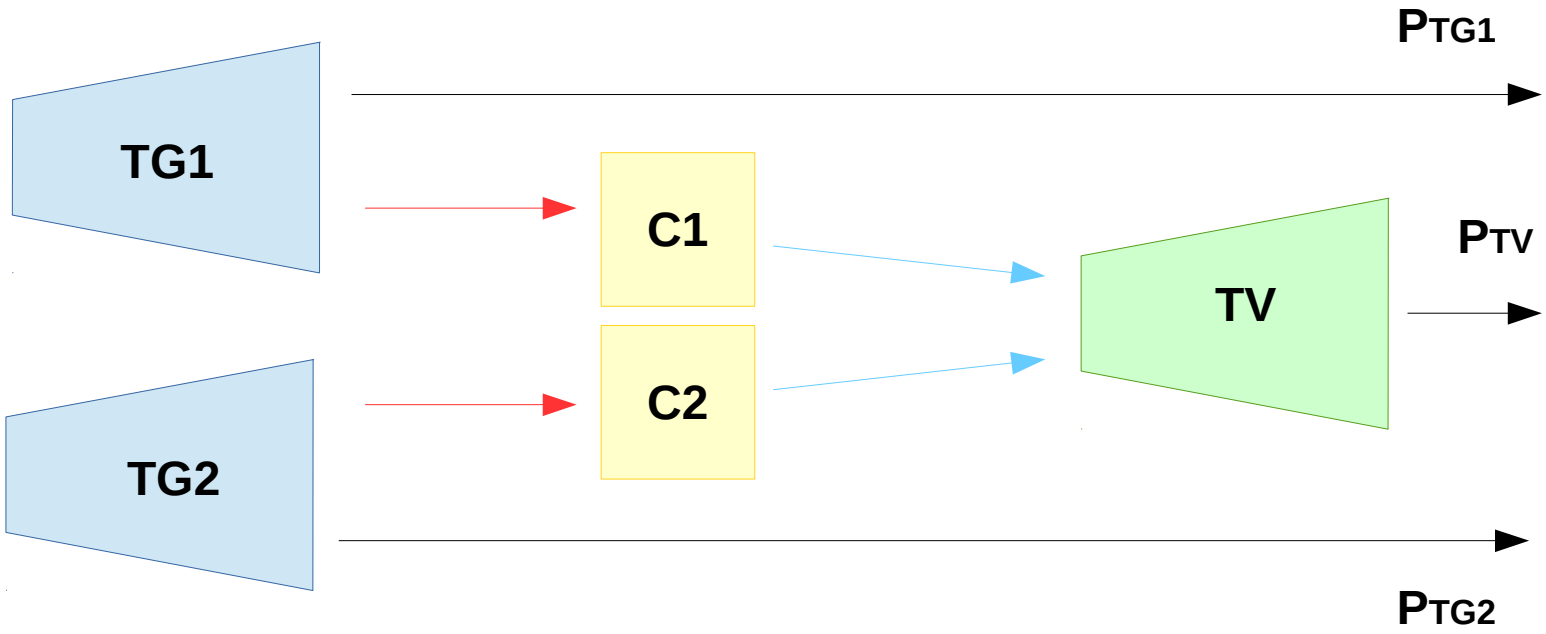
Montevideo - Uruguay.

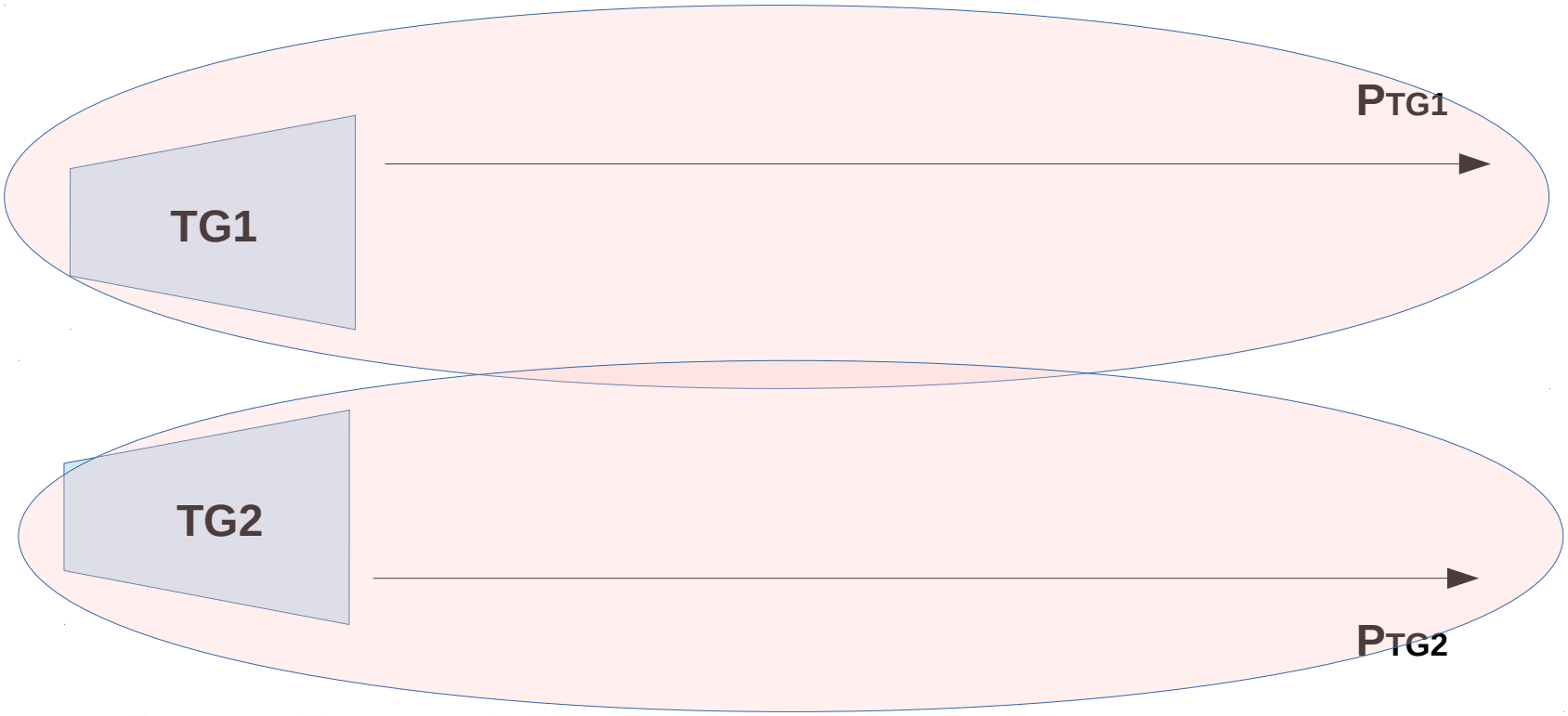
Esquema central



$$P_{CC} = P_{TG} + P_{TV} = (1+k)\,P_{TG} \approx 1.58\,P_{TG}$$

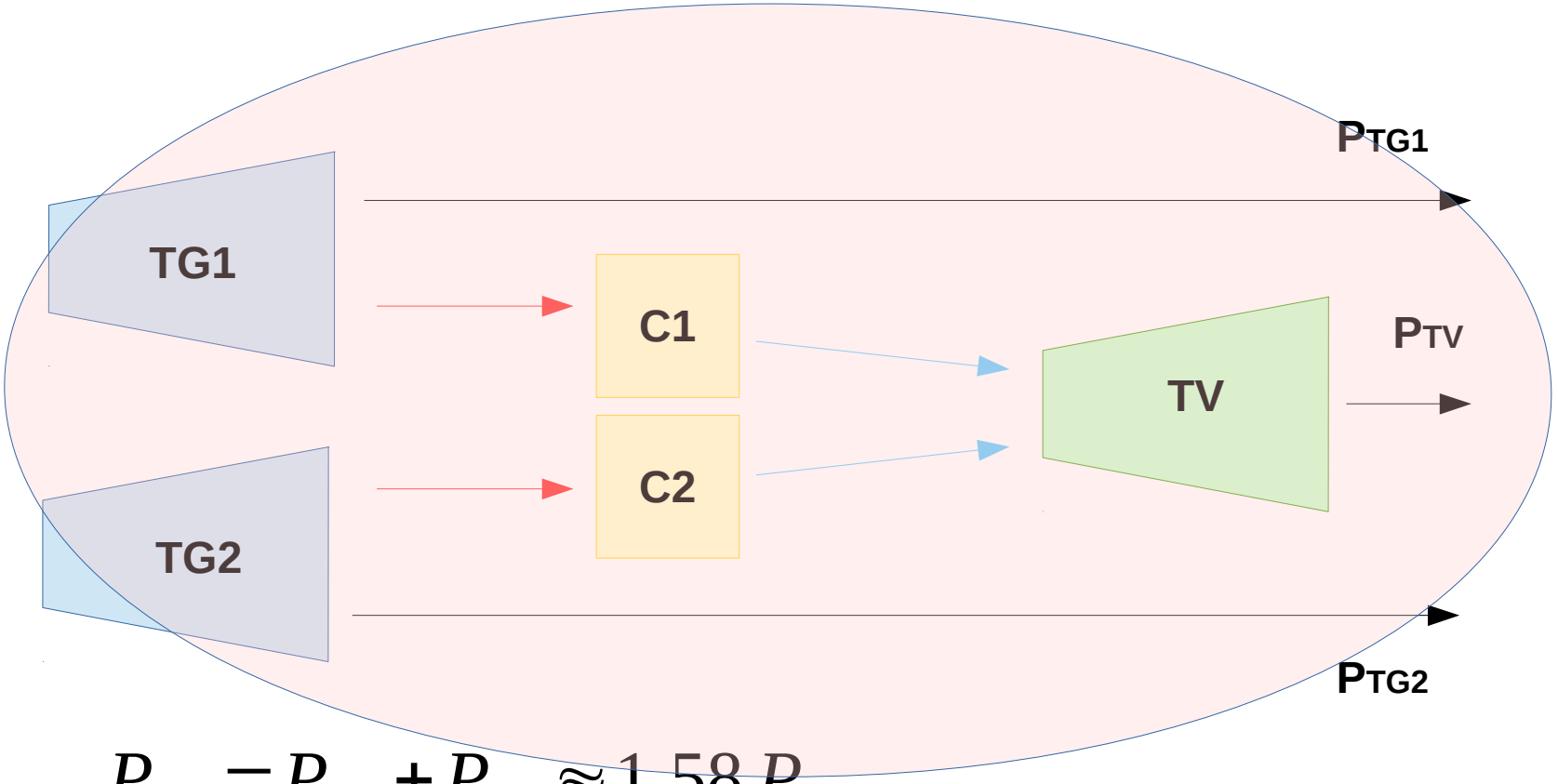
$$k = P_{TV} / P_{TG}$$

Modos funcionamiento: abierto



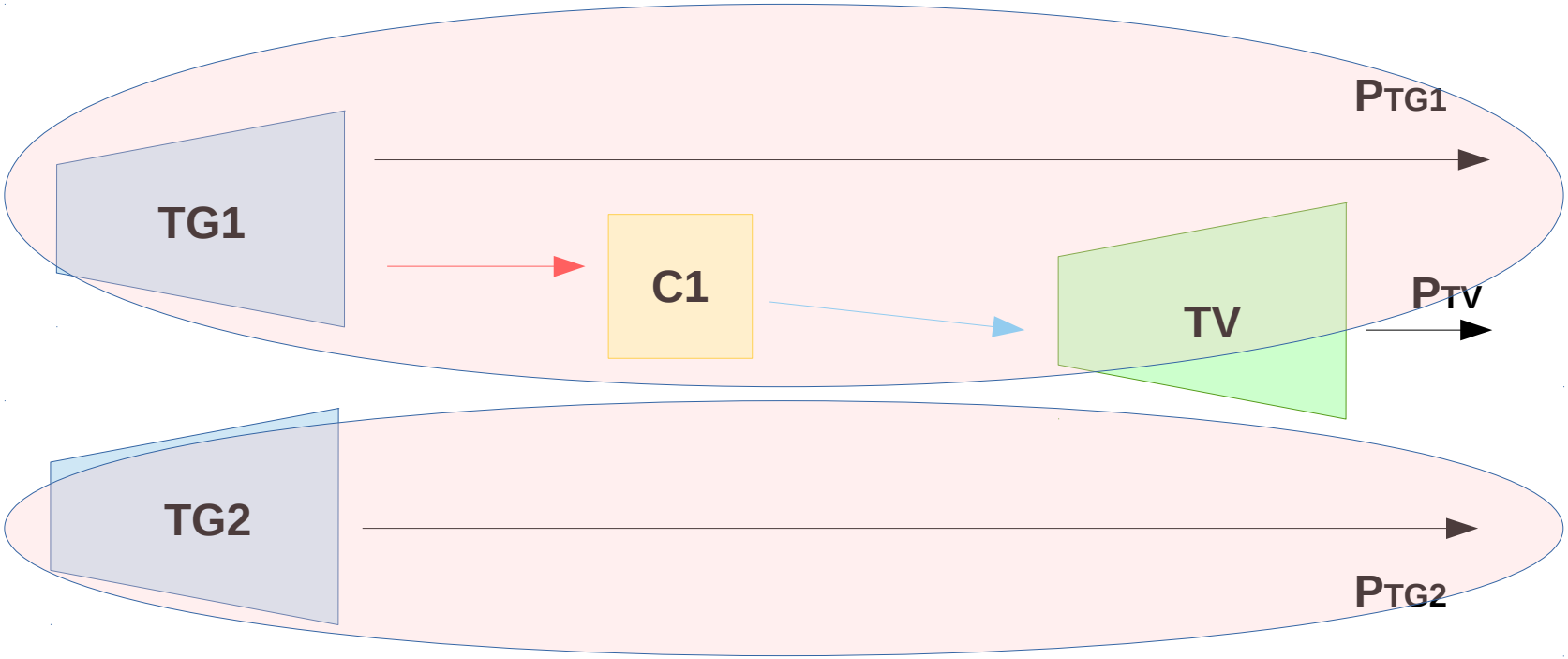
$$P_{CC} = P_{TG1} + P_{TG2} = P_{TG}$$

Modos funcionamiento: cerrado



$$P_{CC} = P_{TG} + P_{TV} \approx 1.58\, P_{TG}$$

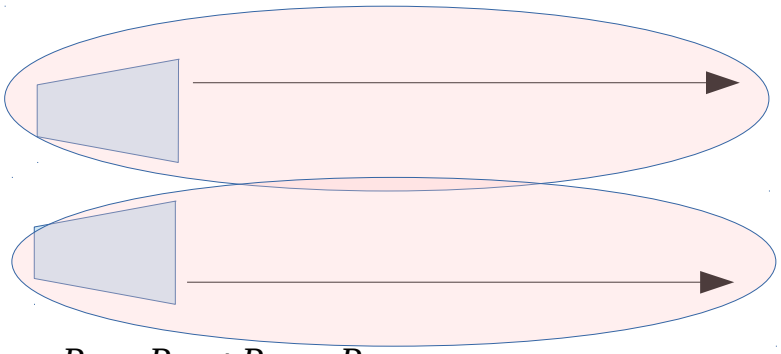
Modos funcionamiento: abierto y cerrado



$$P_{CC} = P_{TG} + P_{TV} \approx 1.58\, P_{TG1} + P_{TG2}$$

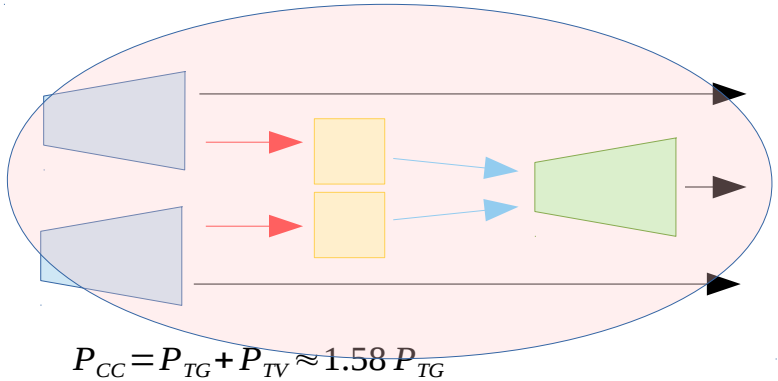
Modos de funcionamiento

Abierto



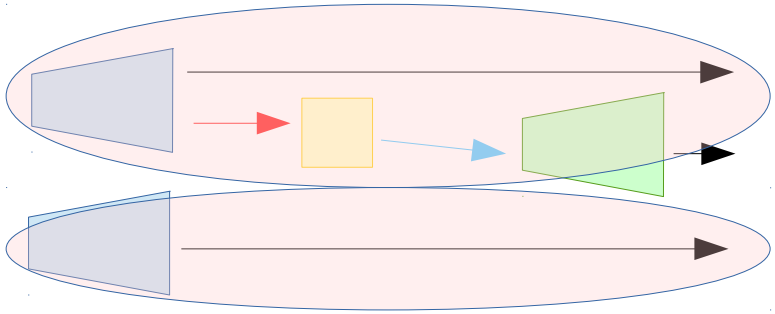
$$P_{CC} = P_{TG1} + P_{TG2} = P_{TG}$$

Cerrado



$$P_{CC} = P_{TG} + P_{TV} \approx 1.58\, P_{TG}$$

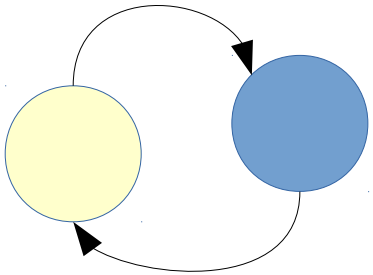
Abierto y Cerrado

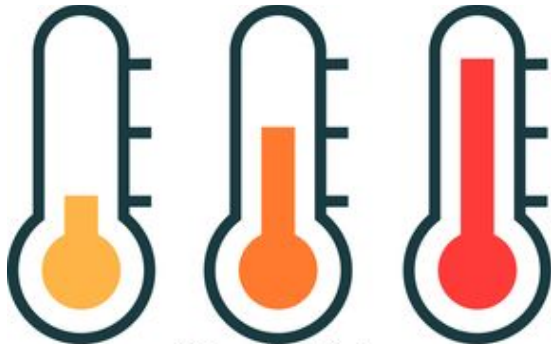


$$P_{CC} = P_{TG} + P_{TV} \approx 1.58\, P_{TG1} + P_{TG2}$$

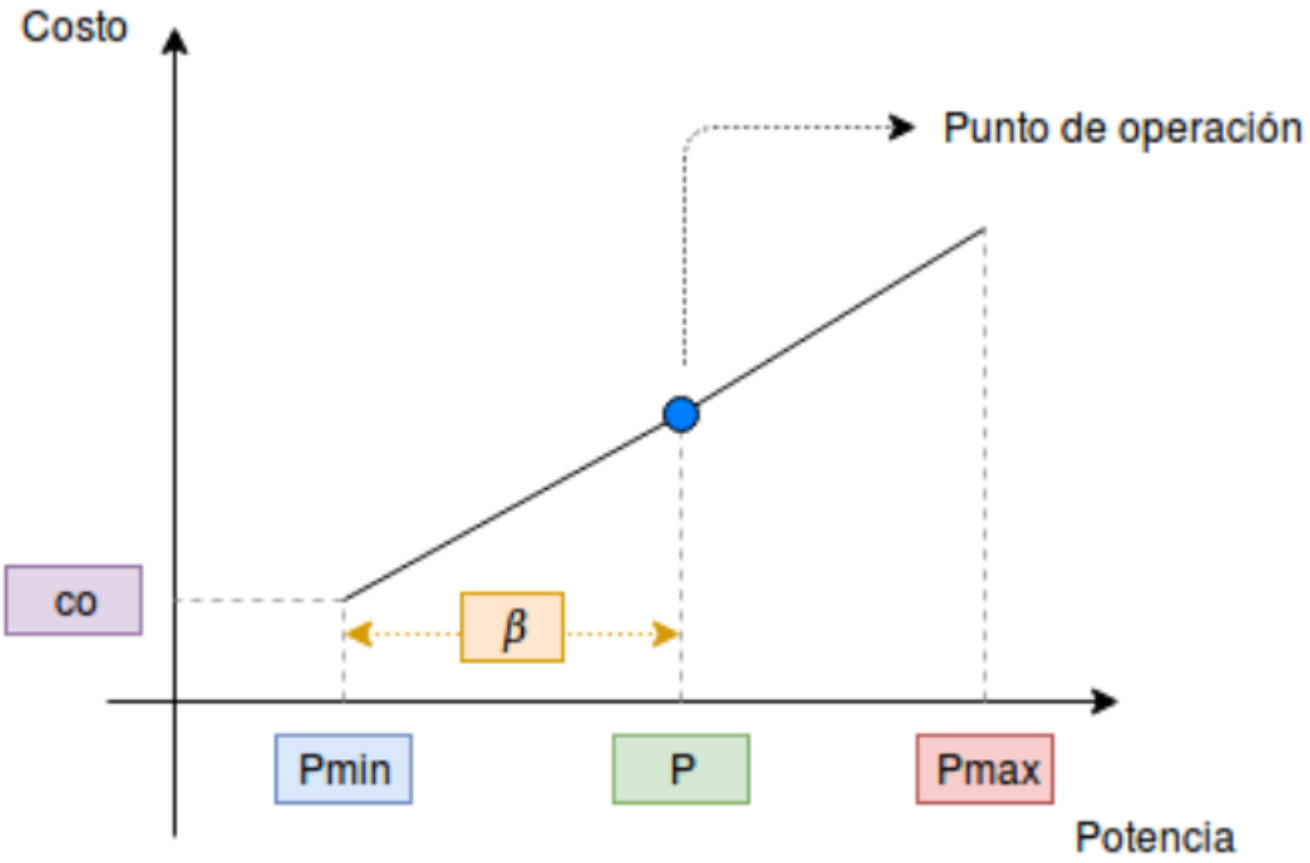
Consideraciones del modelo

- Tiempos de purga
- Tiempos de toma de carga
- Potencia según etapa de transición
- Mínimos técnicos
- Transiciones entre estados
- Tipos de arranque
- Acople entre turbinas

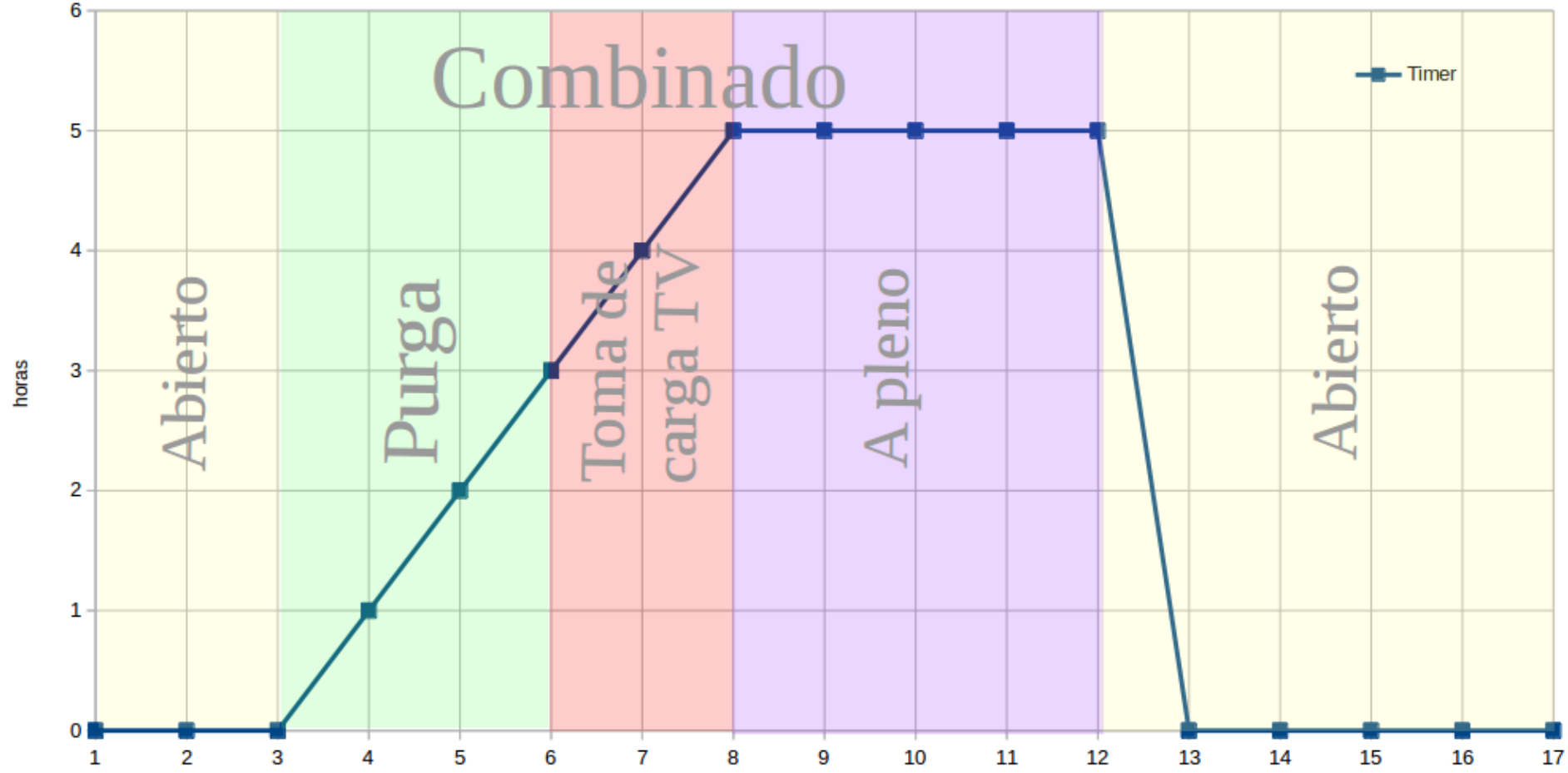




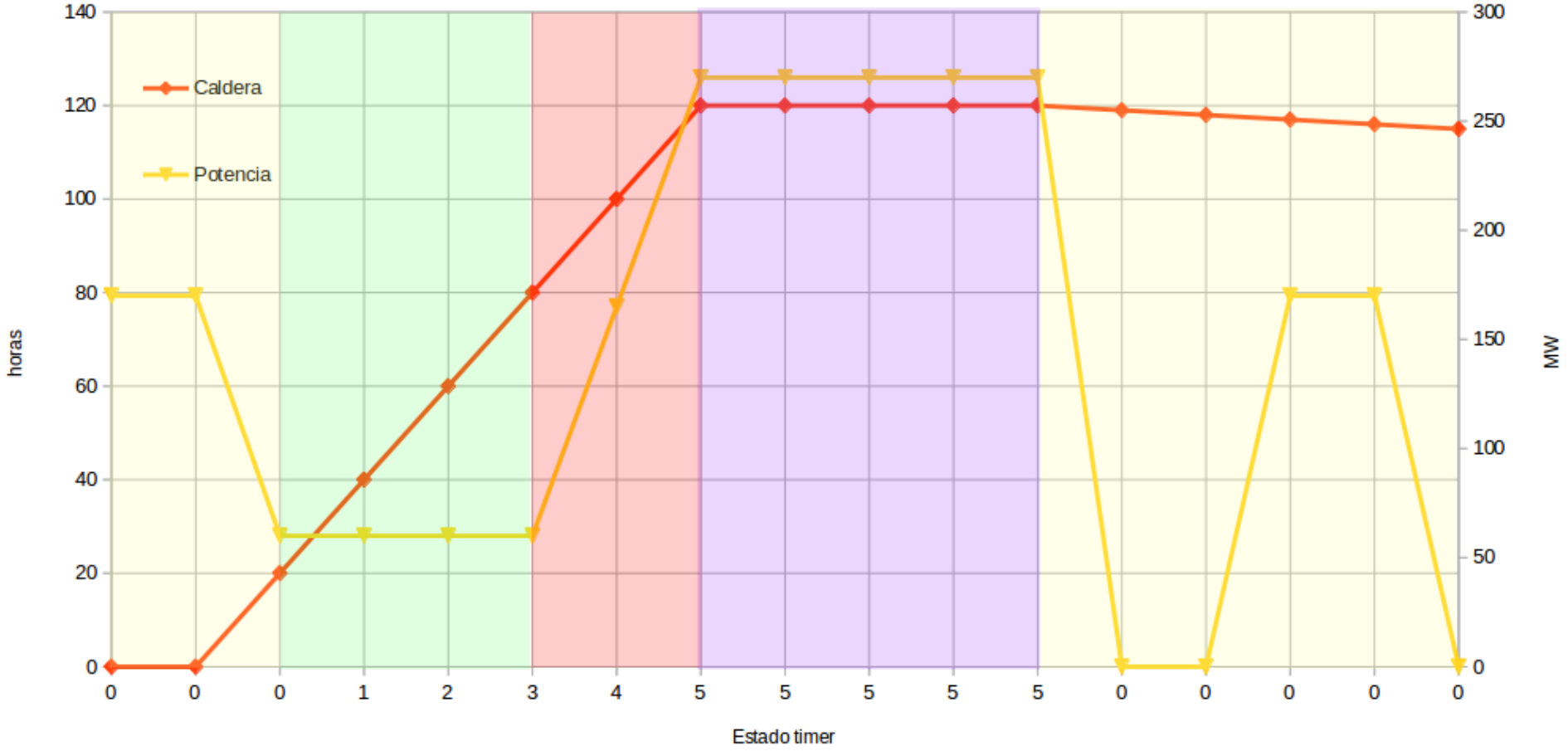
Consideraciones del modelo



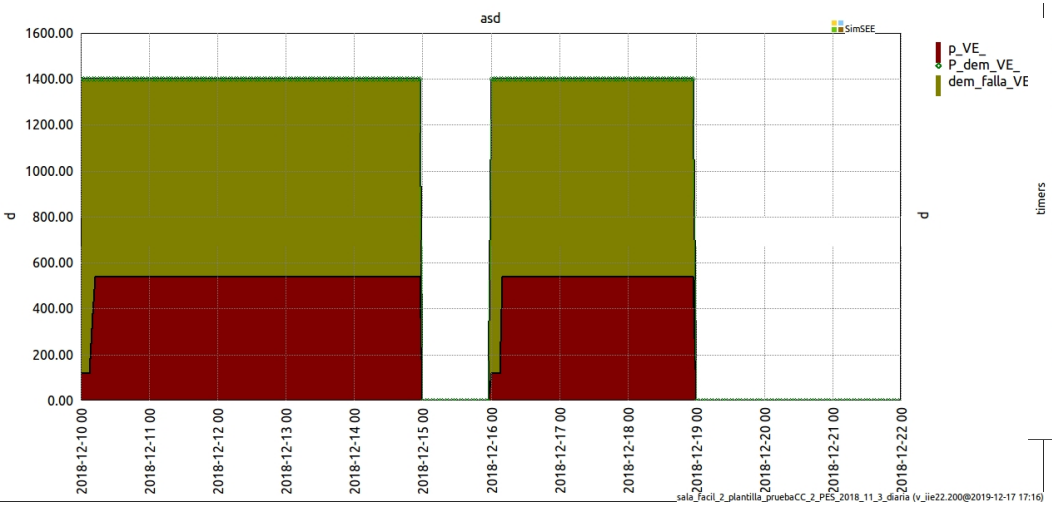
Variables de estado: timer

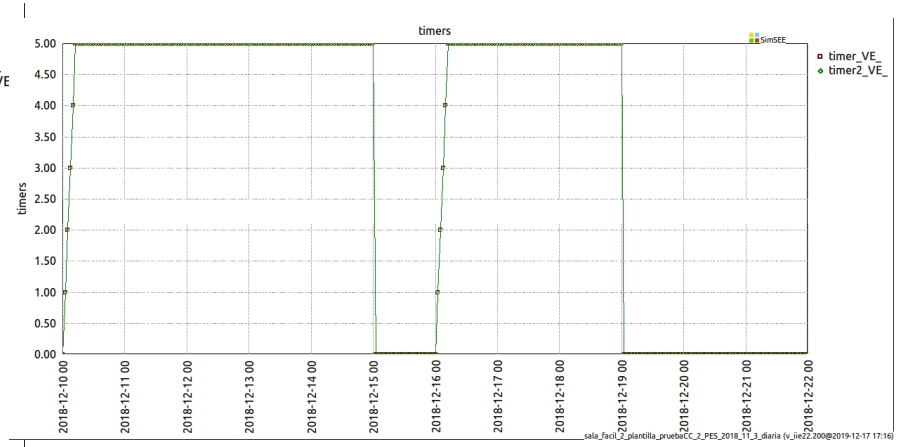


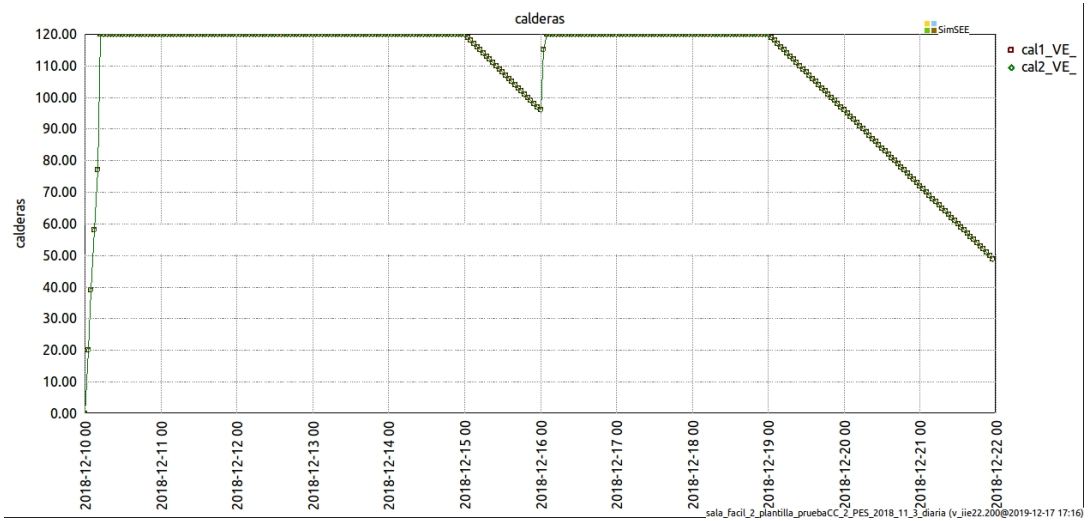
Variables de estado: caldera



Resultados en sala simple

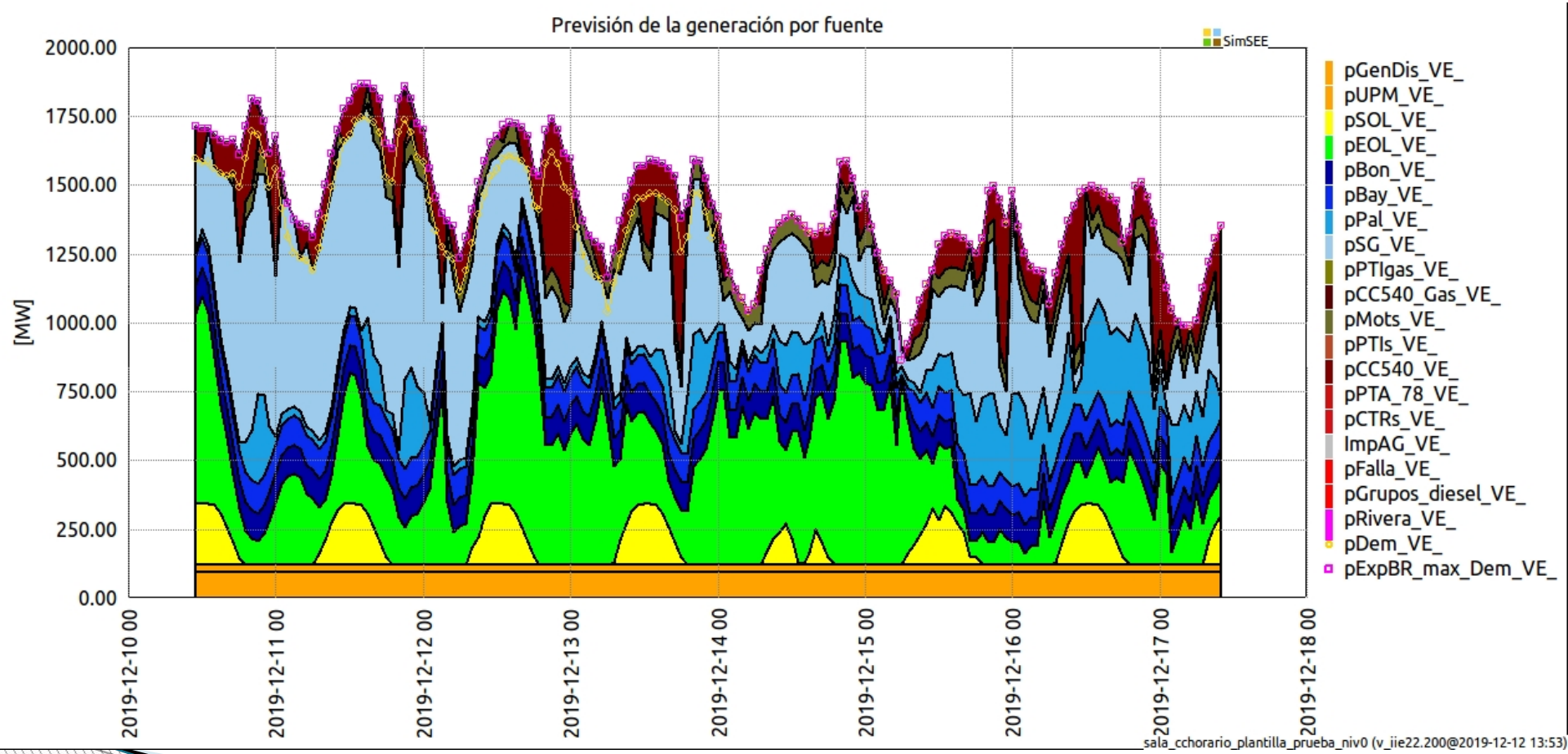




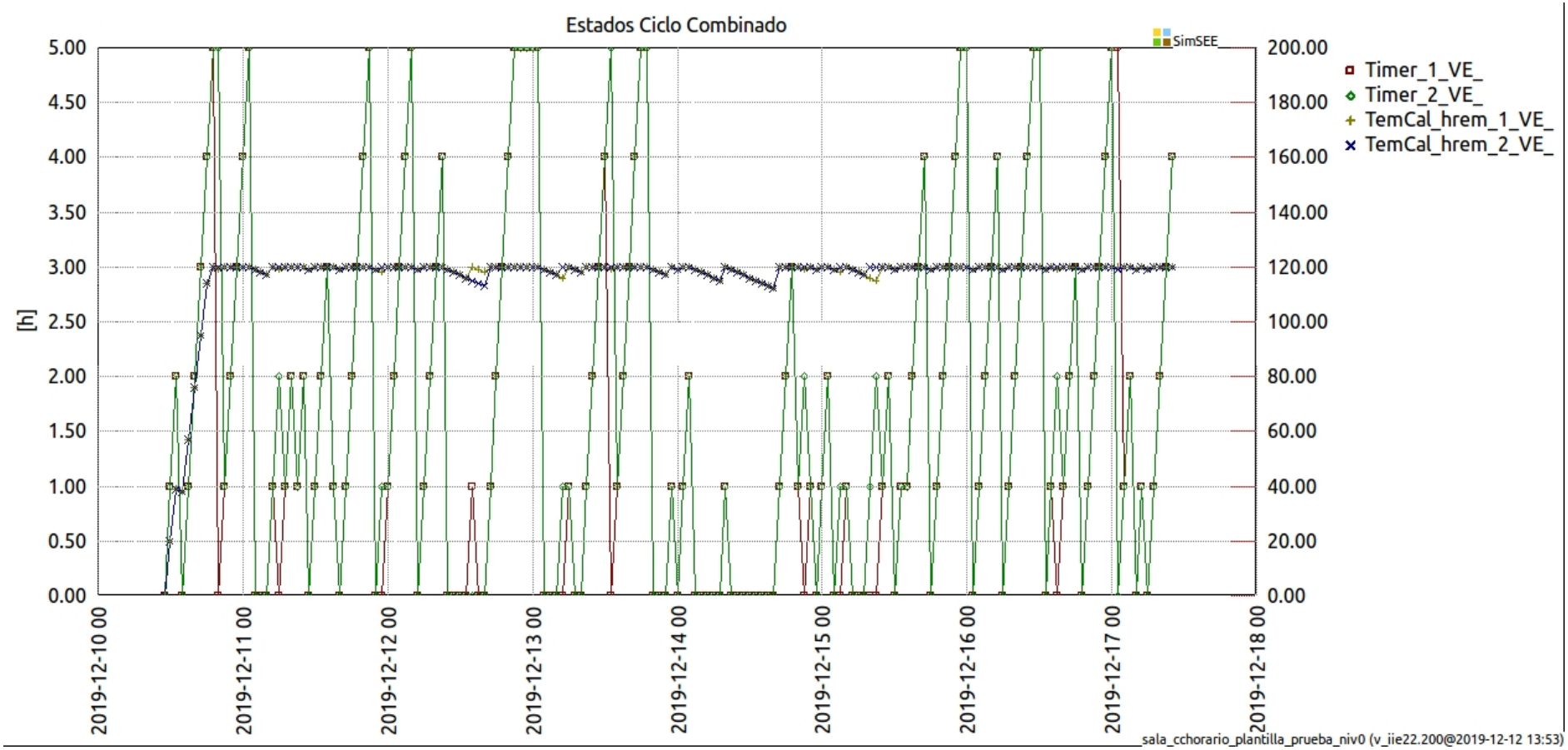


Resultados en sala VATES

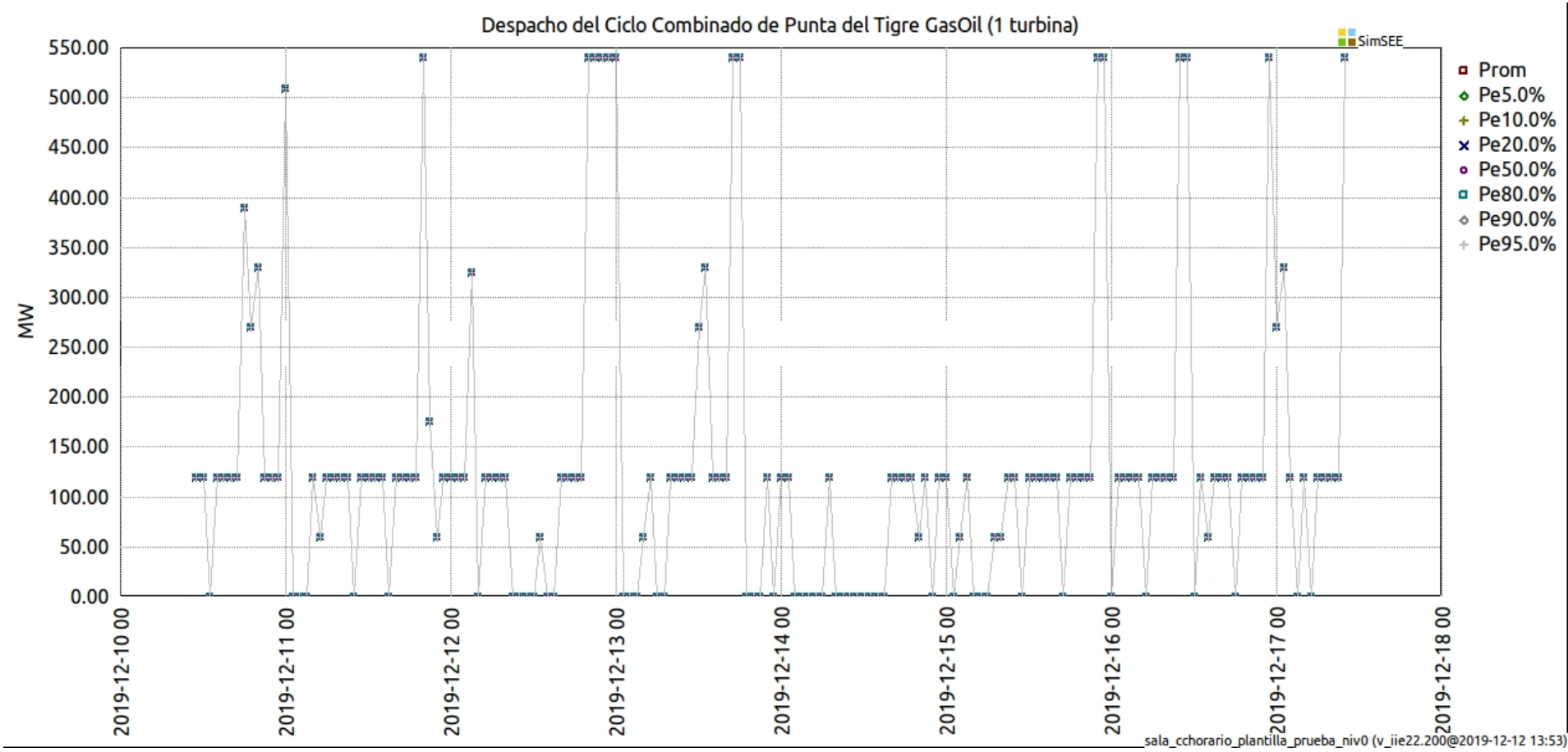
- Modificación: cotas de los lagos bajas para que sea necesario despachar el ciclo



Resultados en sala VATES

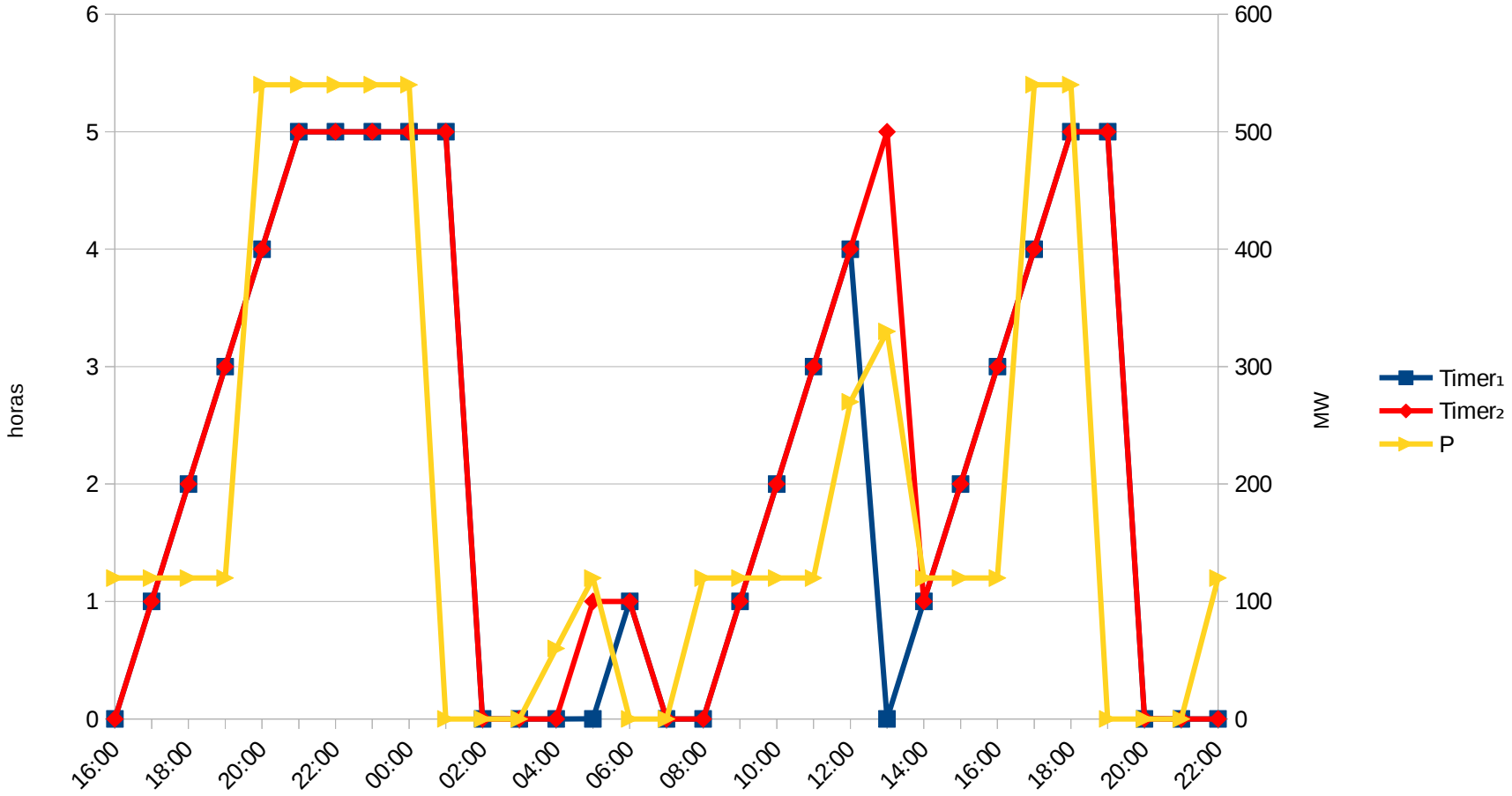


Resultados en sala VATES



Resultados en sala VATES

- 12/12 16:00 - 13/12 22:00



Trabajo a futuro

- Costo de arranque y de parada
- Dimensión del problema
- Operación dual de combustibles
- Incorporación a sala VATES

Muchas Gracias