

# RENEWABLE ENERGY

**Pilot Concentrated Solar Power  
Plant Integrated with Cogeneration**



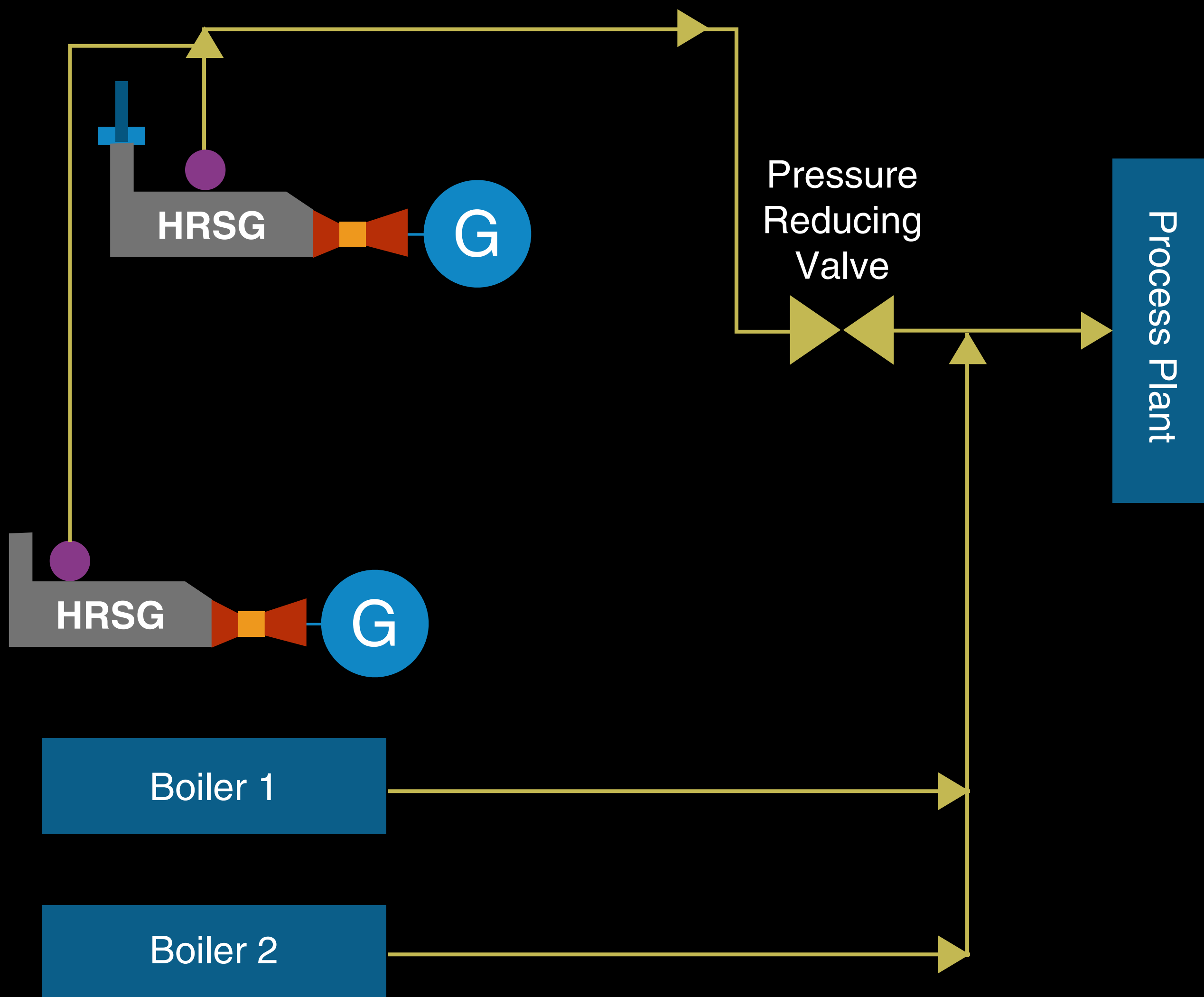
# Concentrated Solar Power (CSP) Plant Integrated with a Co-Gen



- Integration of CSP into existing facilities to generate steam
- STG generating additional electrical power
- Benefits:
  - ▶ Mitigate fossil fuel burning
  - ▶ Demo facility to prove the technology
  - ▶ Increased thermal efficiency of the power block
  - ▶ One of the most cost effective paths of renewable energy integration
  - ▶ Highly adaptable for desalination
  - ▶ Minimal investment risk to explore new technology

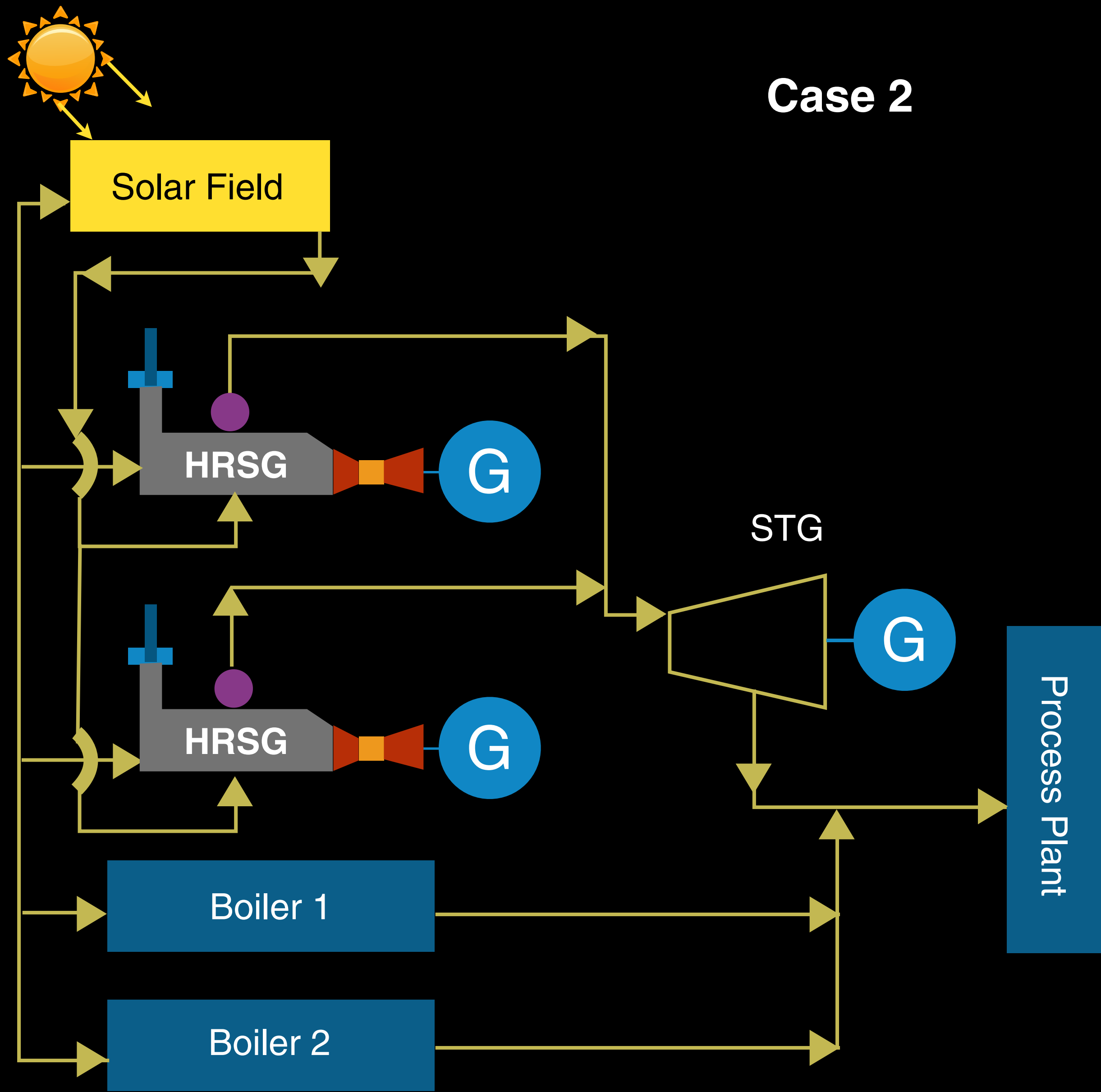


## Current Setup



## Existing Plant Configuration

- Efficient configuration using Cogeneration, above 75% efficiency
- Boilers are providing a large quantity of steam, reducing overall plant efficiency
- Opportunity for further efficiency enhancement



Case 2

# Potential Plant Configuration

- A Steam Turbine added to utilize generated steam
- CSP supplying additional steam to optimize STG operation
- Generated electrical power during the day is supplied to the grid
- Plant efficiency enhancement is achieved, exceeding 80% efficiency



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