

Jim Bridger Coal to Natural Gas Conversion



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Why Natural Gas Conversion at Jim Bridger



- Idaho Power 2021 IRP — Preferred Portfolio
 - Natural gas conversion on units 1 and 2 in 2024
- Wyoming Department of Environmental Quality and the Federal Environmental Protection Agency Settlement Agreement/Consent Decree—Regional Haze Compliance
 - In lieu of installing Selective Catalytic Reductions on units 2 and 1 in 2021 and 2022, parties agreed to monthly plant emission limitations and natural gas conversion on units 1 and 2 in 2024.

Natural Gas and Coal Generating Units

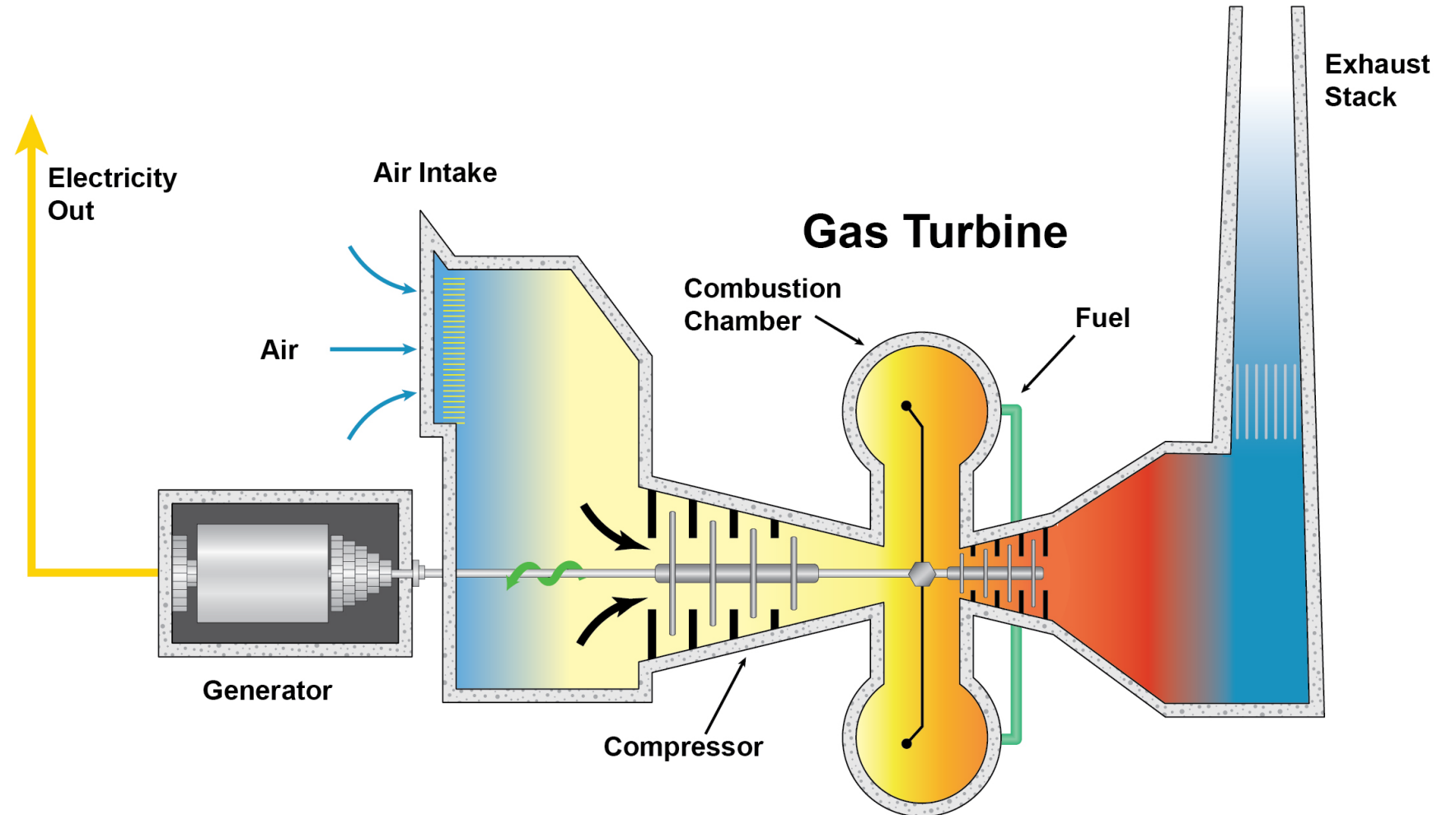


- Simple Cycle Combustion Turbine (SCCT)
- Combined Cycle Combustion Turbine (CCCT)
- Coal-Fired Steam Turbine
- Natural Gas Conversion of Coal-Fired Steam Turbine

Simple Cycle Combustion Turbine

Danskin and
Bennett Mountain

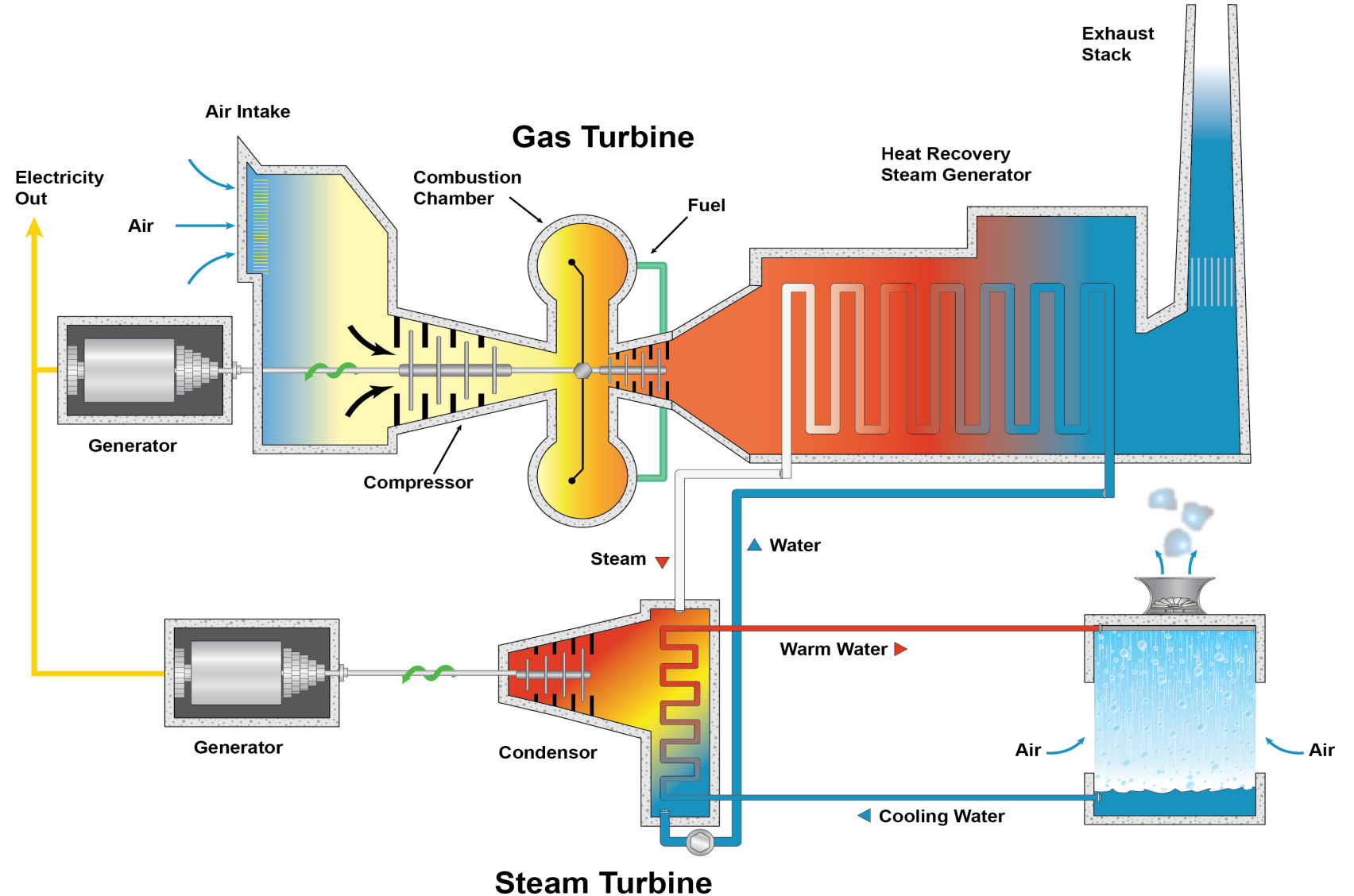
- Gas turbine
- Generator



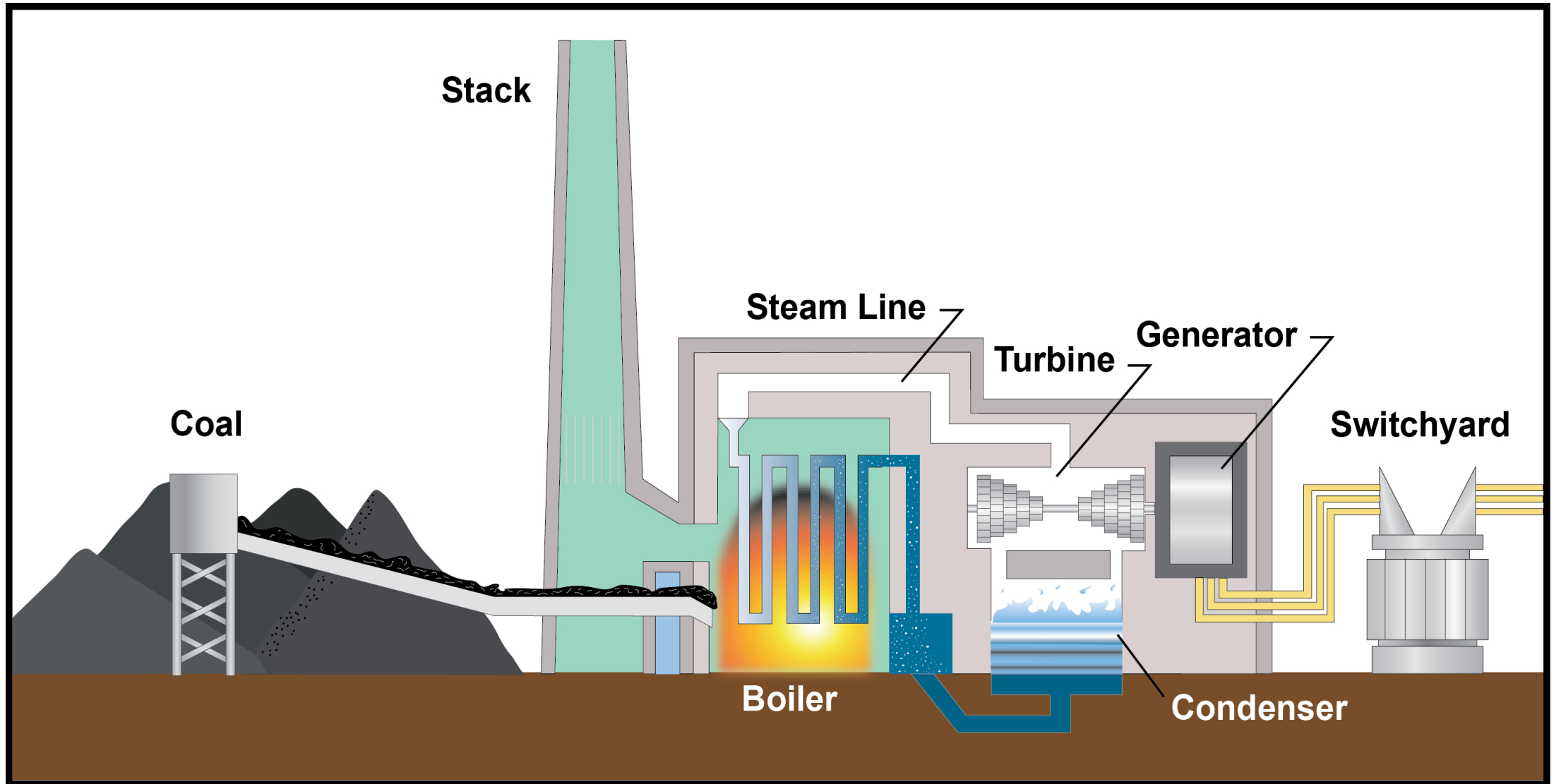
Combined Cycle Combustion Turbine

Langley Gulch

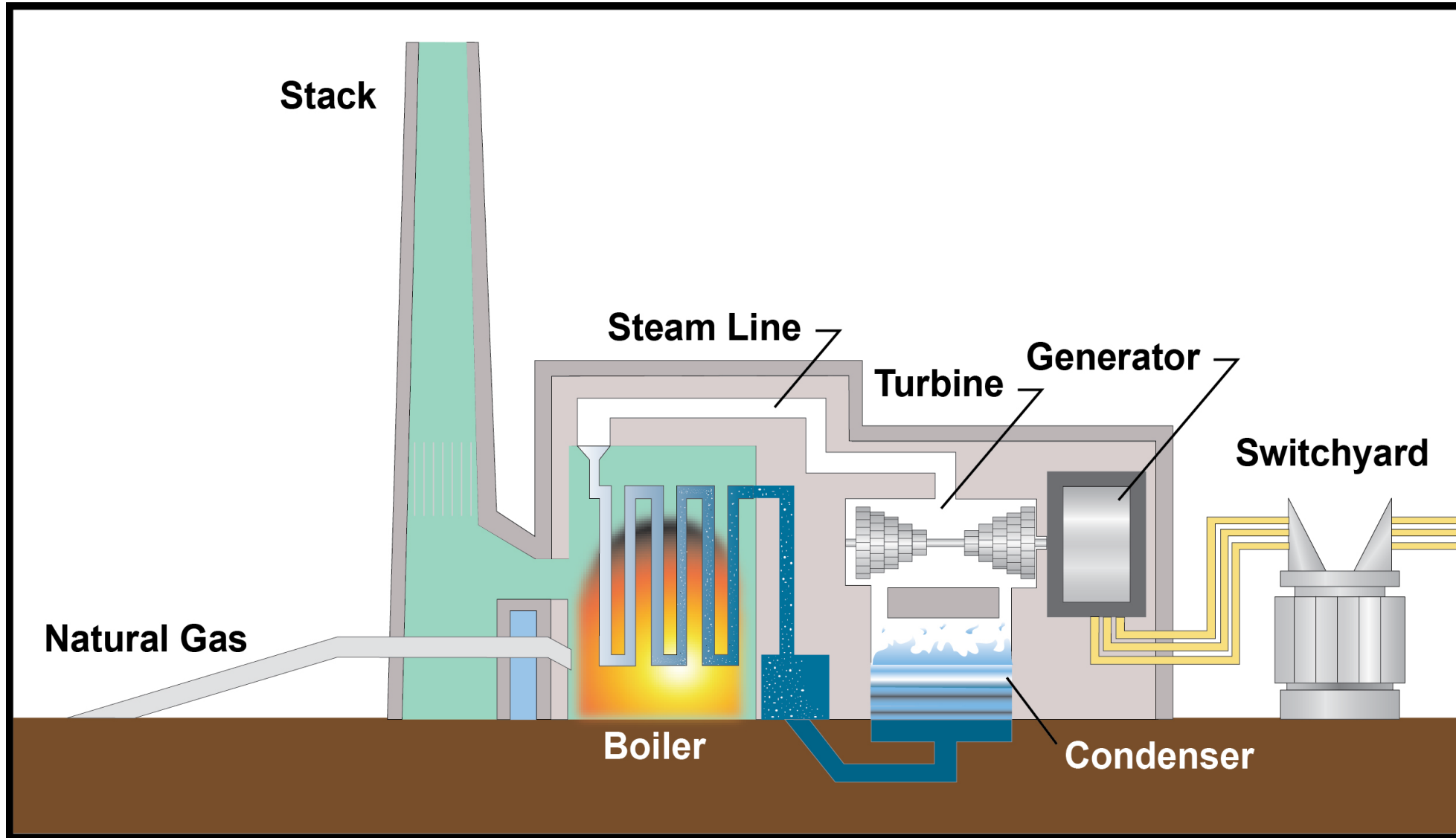
- Gas turbine
- Heat recovery steam generator
- Steam turbine
- Two generators



Jim Bridger Units: Coal-fired



Units 1 and 2 After Conversion



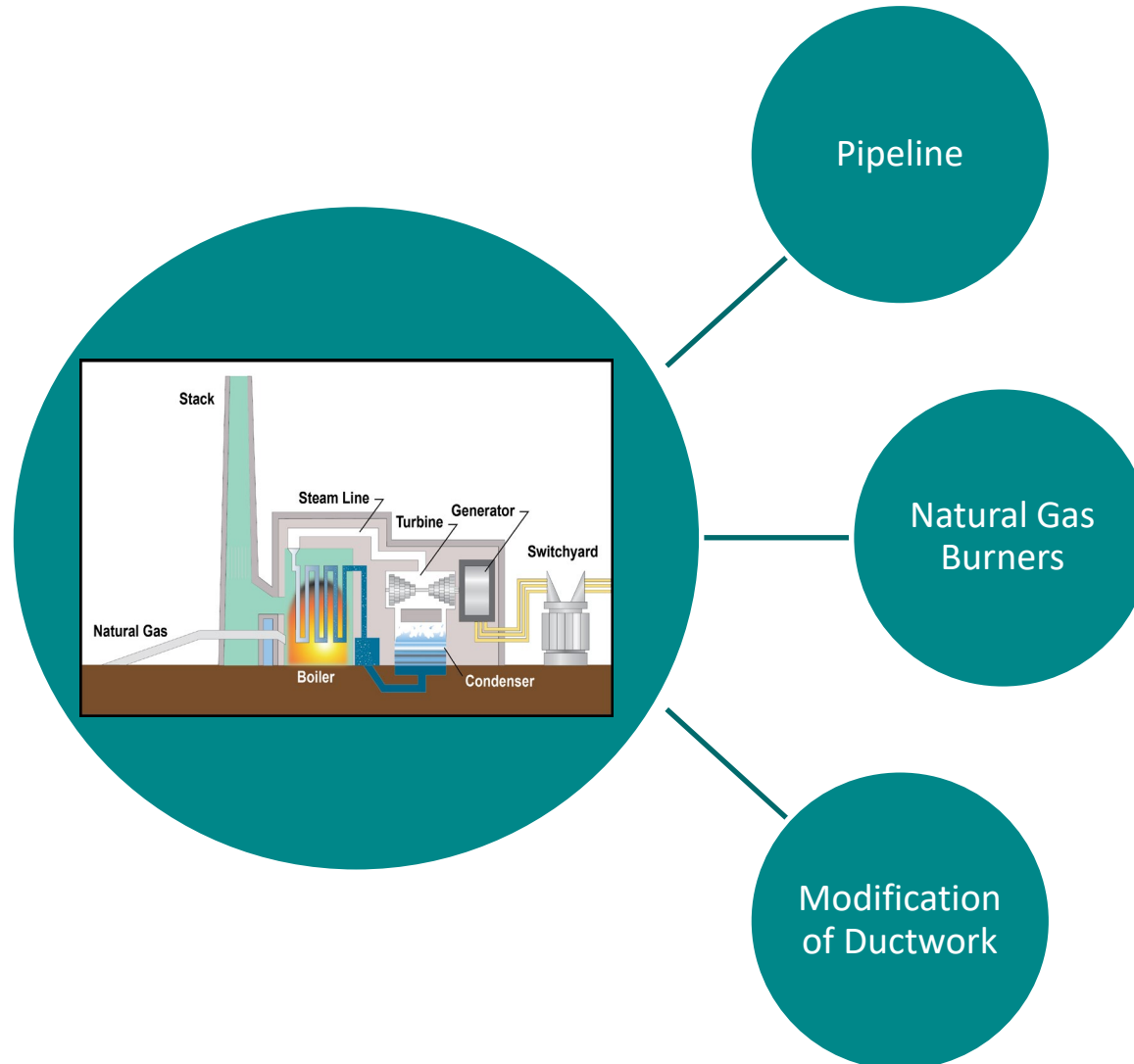
Jim Bridger Natural Gas Conversion



Convert Existing Coal-fueled Boiler with Natural Gas

- 100% fueled with natural gas
- Existing boiler with new natural gas burners
- Existing steam turbine
- Existing generator

Major Components for NG Conversion



Project Completion



- Current online date for units 1 and 2: May 1, 2024
- Current estimated total project capital cost: \$28.8M
(Idaho Power share: \$9.6M)

Natural Gas Performance/Emissions

- Unit maximum output, minimum output and heat rate will be very similar to existing coal-fired units
- Emissions are reduced

	Coal-Fired (#/mmBtu [*])	Natural Gas-Fired (#/mmBtu)
NO_x	0.18	0.12
SO₂	0.17	0.0005
CO₂	209.8	84.1

^{*}mmBtu – Million British Thermal Units

Jim Bridger Partnership Agreements



- Idaho Power (1/3) and PacifiCorp (2/3) jointly own the Jim Bridger Plant.
- PacifiCorp is the operator of the plant.
- Capital projects and unit modifications are decided by co-owners.

Natural Gas Conversion Modeling in the 2023 IRP



- Gas conversion on units 1 and 2 in 2024 (same as 2021 IRP)
- Retirement dates for units 1 and 2 will be modeled economically
- Gas conversion option for units 3 and 4 in 2026
- Retirement dates for units 3 and 4 will be modeled economically

Questions?

