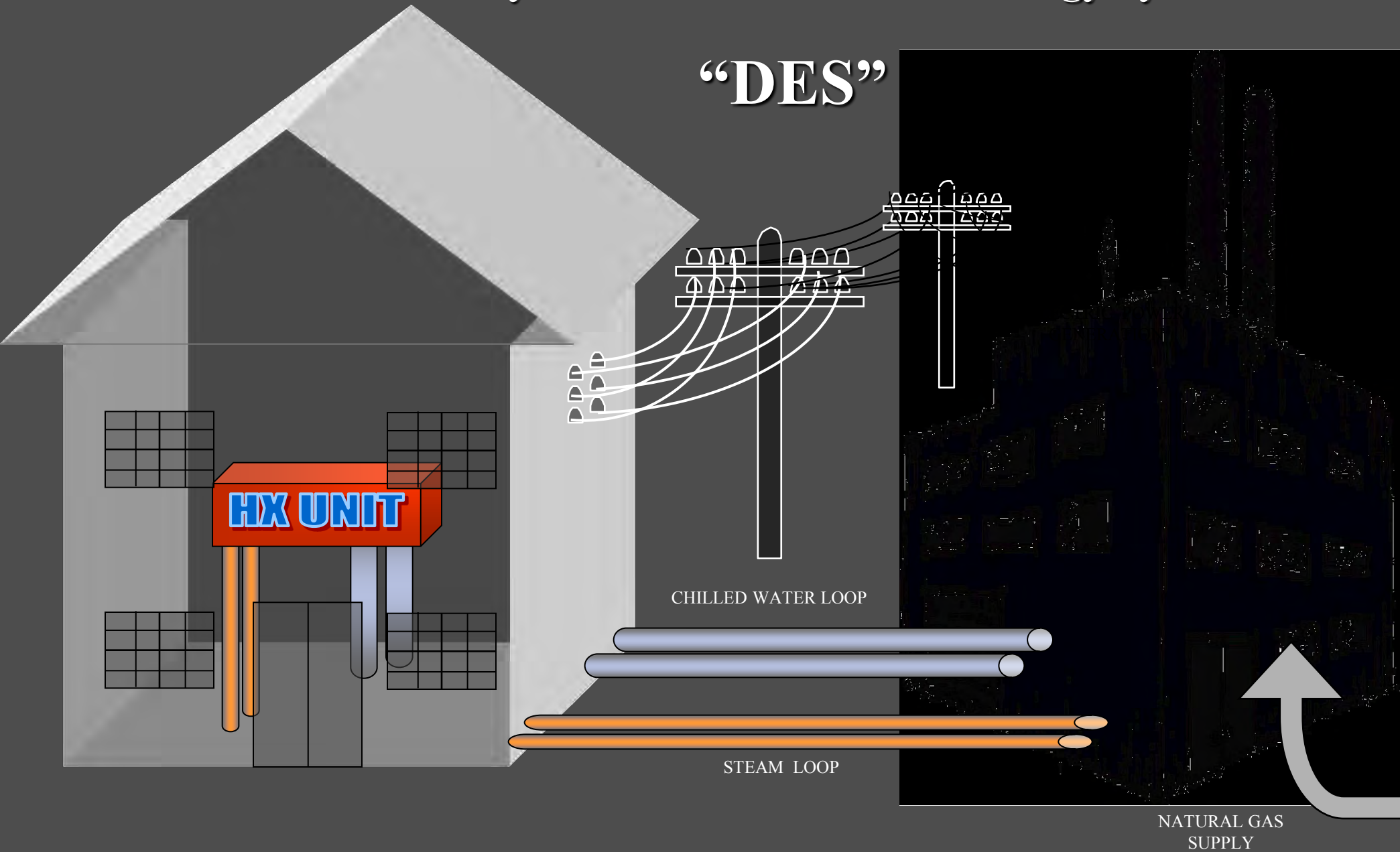


# University of New Mexico District Energy System

“DES”



# District Energy System Overview

UNM DES Fact sheet - Technical data:

## Chilled water network:

- 11,200 Tons (40 MW)
- 15,000 gpm (3,400 m<sup>3</sup>/h )
- 95 buildings as consumers
- 11 miles (18 km) main pipe
- Supply press 50 psig (4 bar )
- Supply temperature 40 F (4 C)

## Steam network:

- 192 million BTU/hr (56 MW)
- 160,000 lbs/hr (56 m<sup>3</sup>/h)
- 100 buildings as consumers
- 6 miles (9.5 km) main pipe
- Supply pressure 120 & 40 psig (3 & 8 bar)
- Supply temperature 350 F (175 C)

## Electrical network:

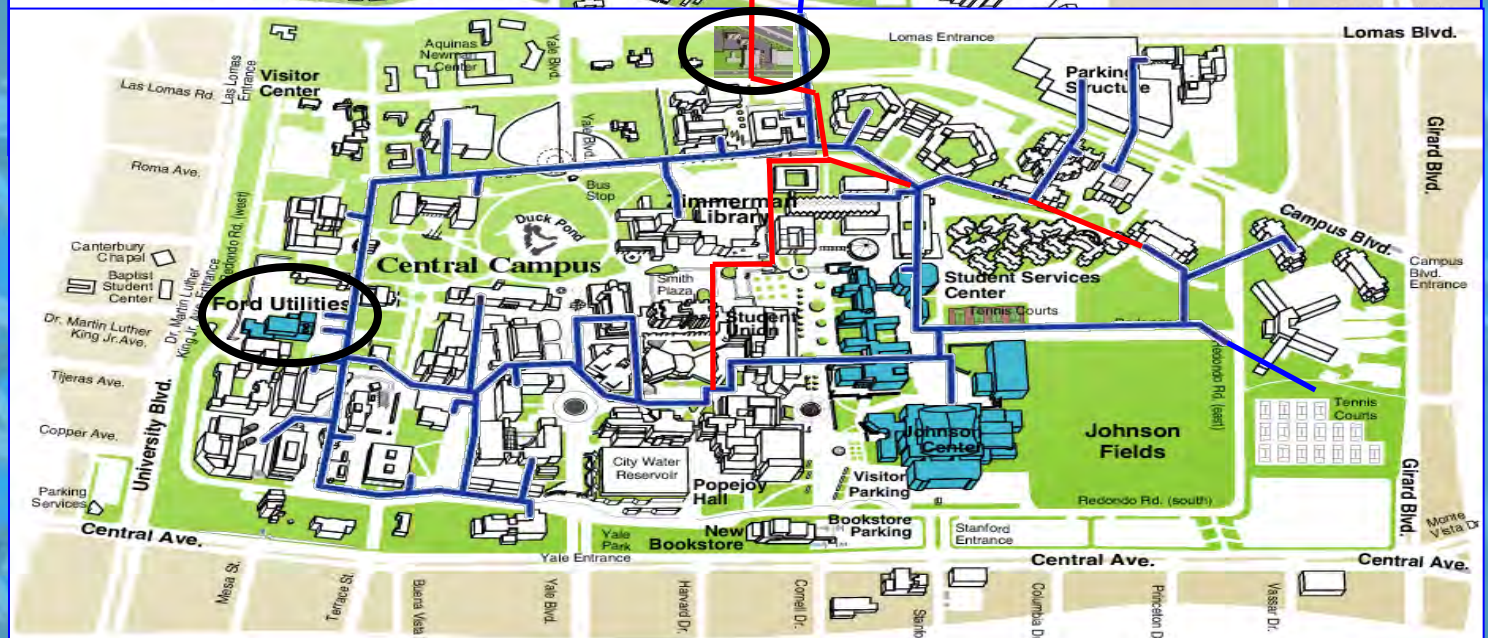
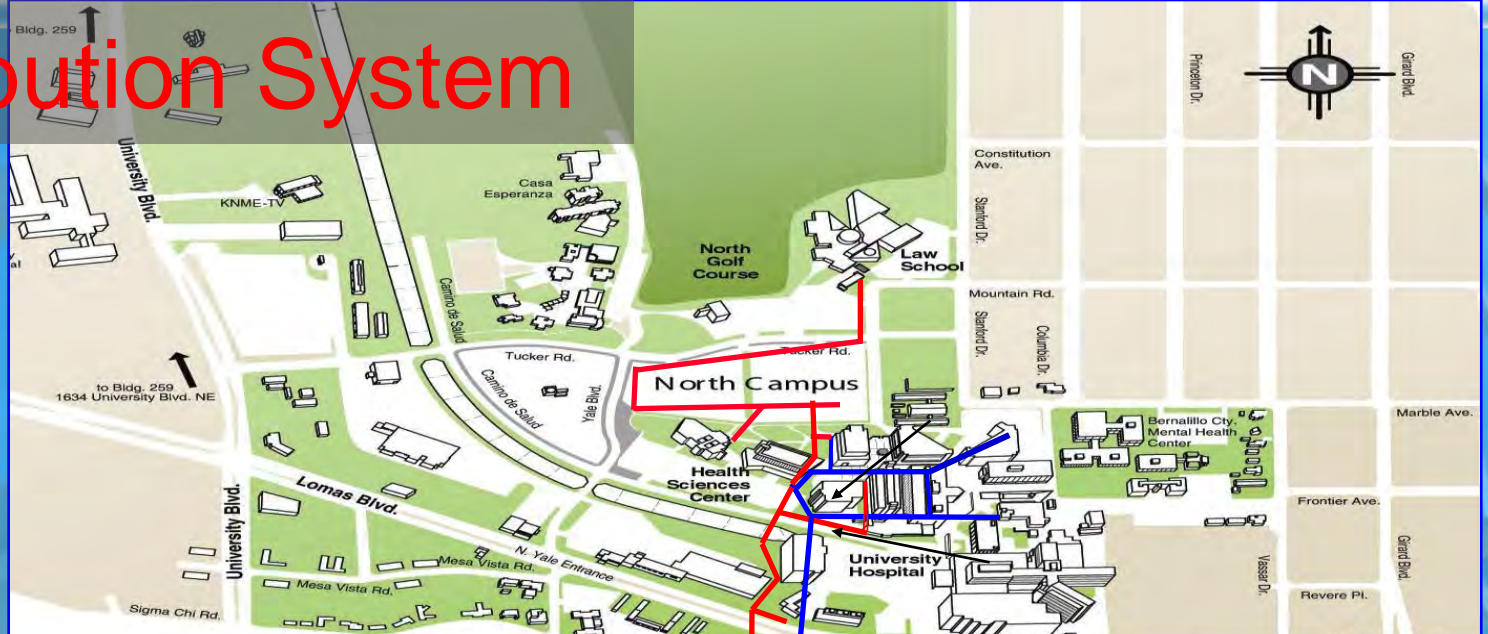
- 24 MW Peak Demand
- 12,470 VAC dual radial campus distribution system
- 2 major substations owned by UNM
- 3 switch stations





# Utility Equipment



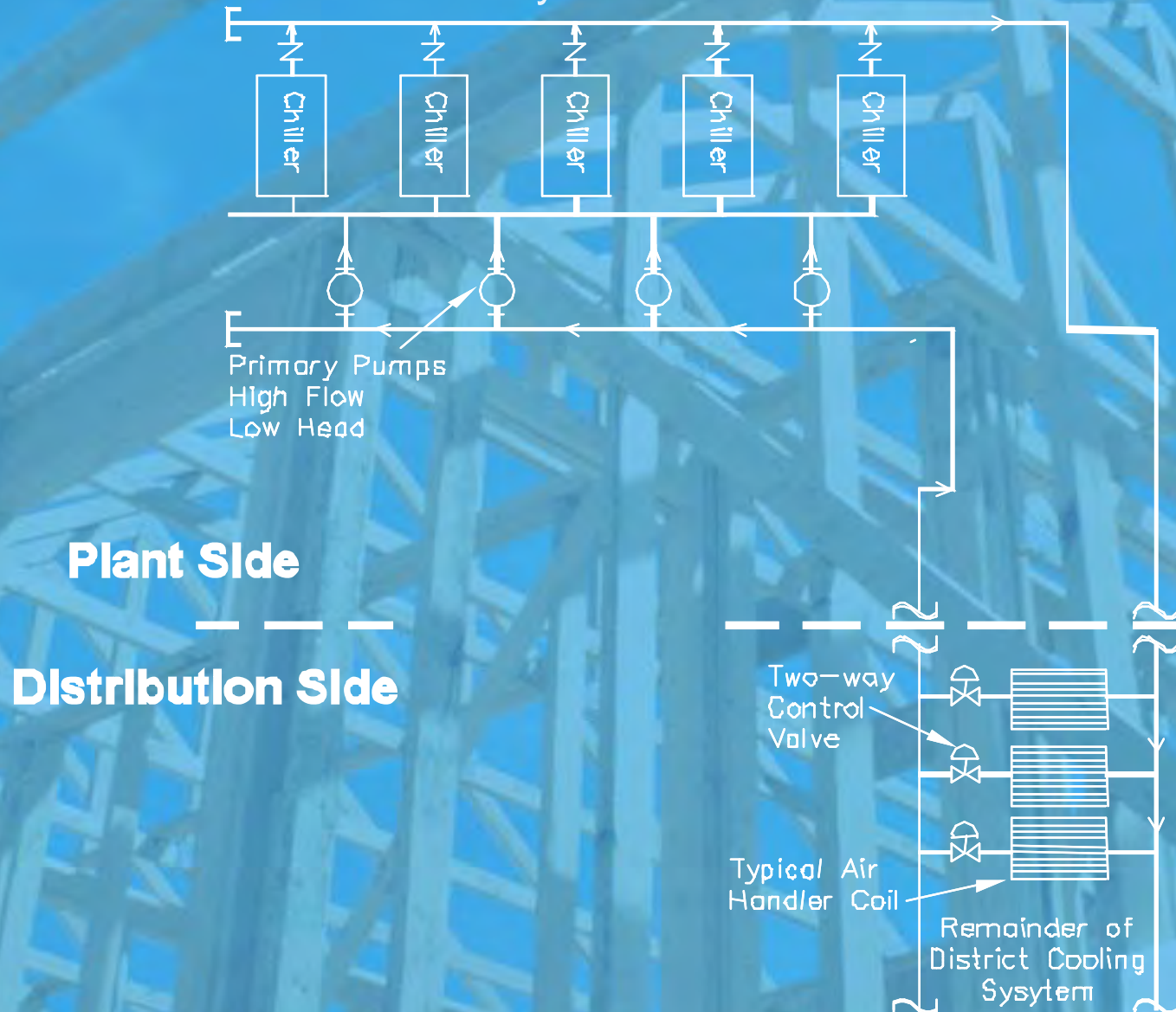
# Distribution System



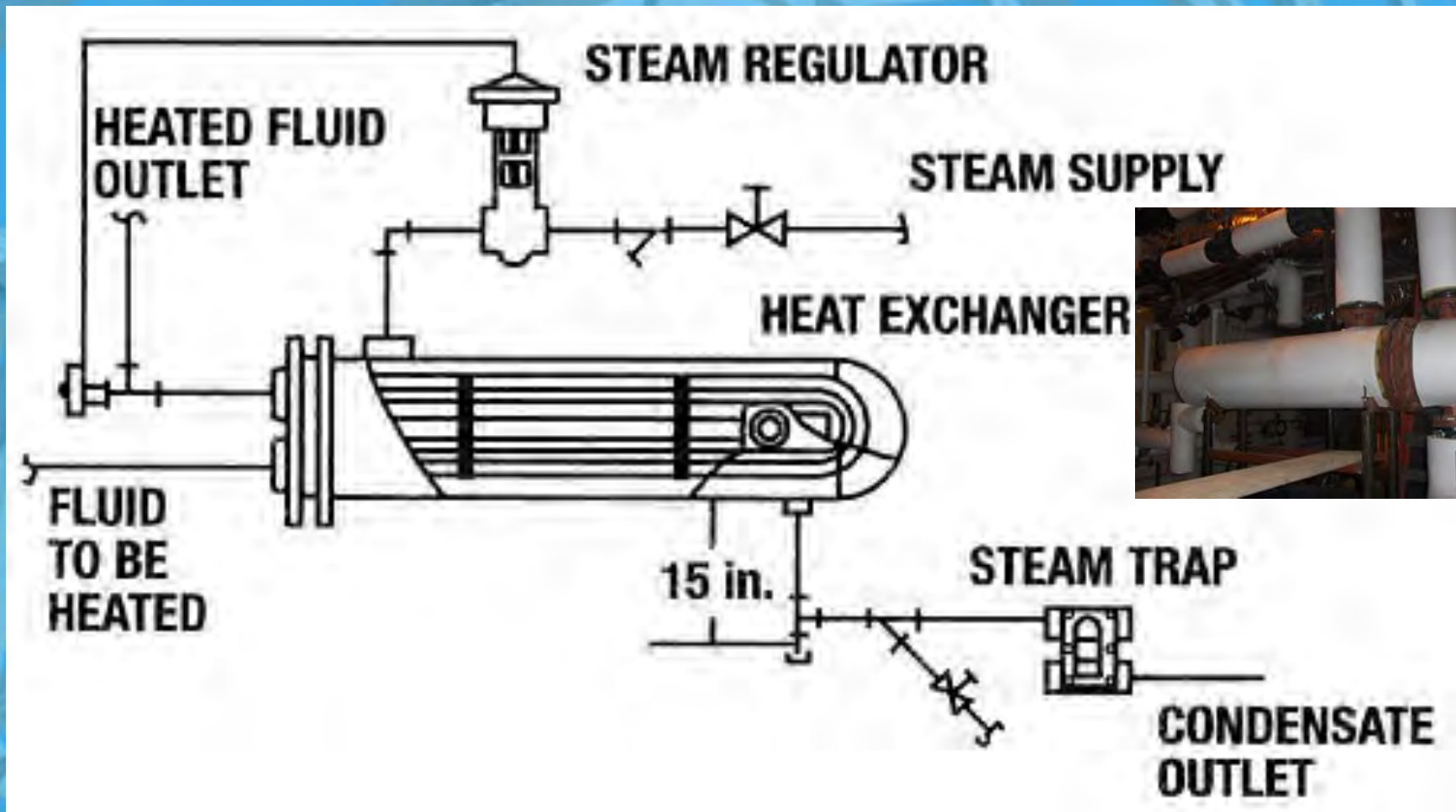
Piping in Tunnel	
Direct Buried Pipe	

# District Cooling Configuration

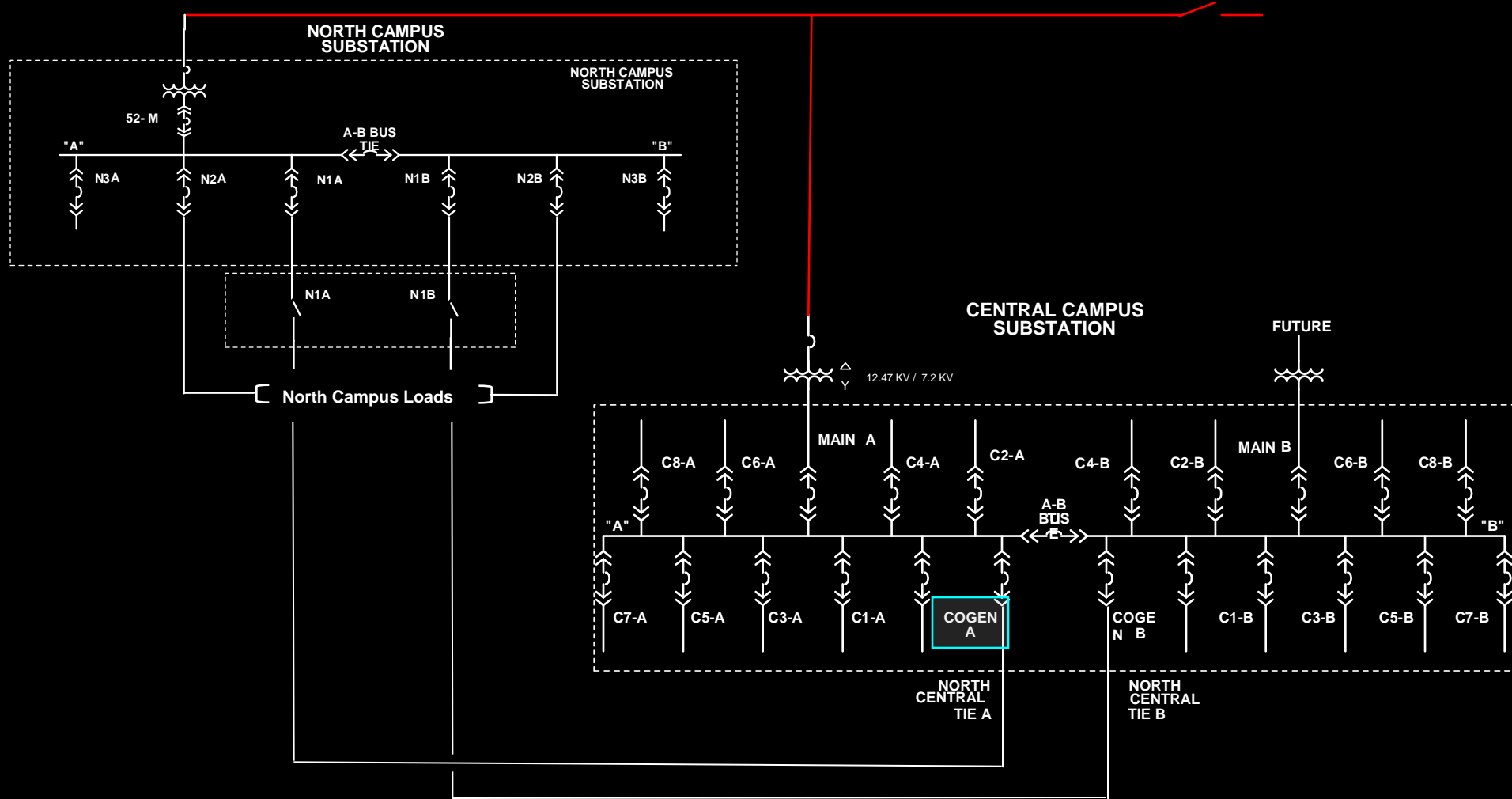
Direct Primary Variable Flow



# Typical Steam-Hot Water System



# UNM Electric Configuration

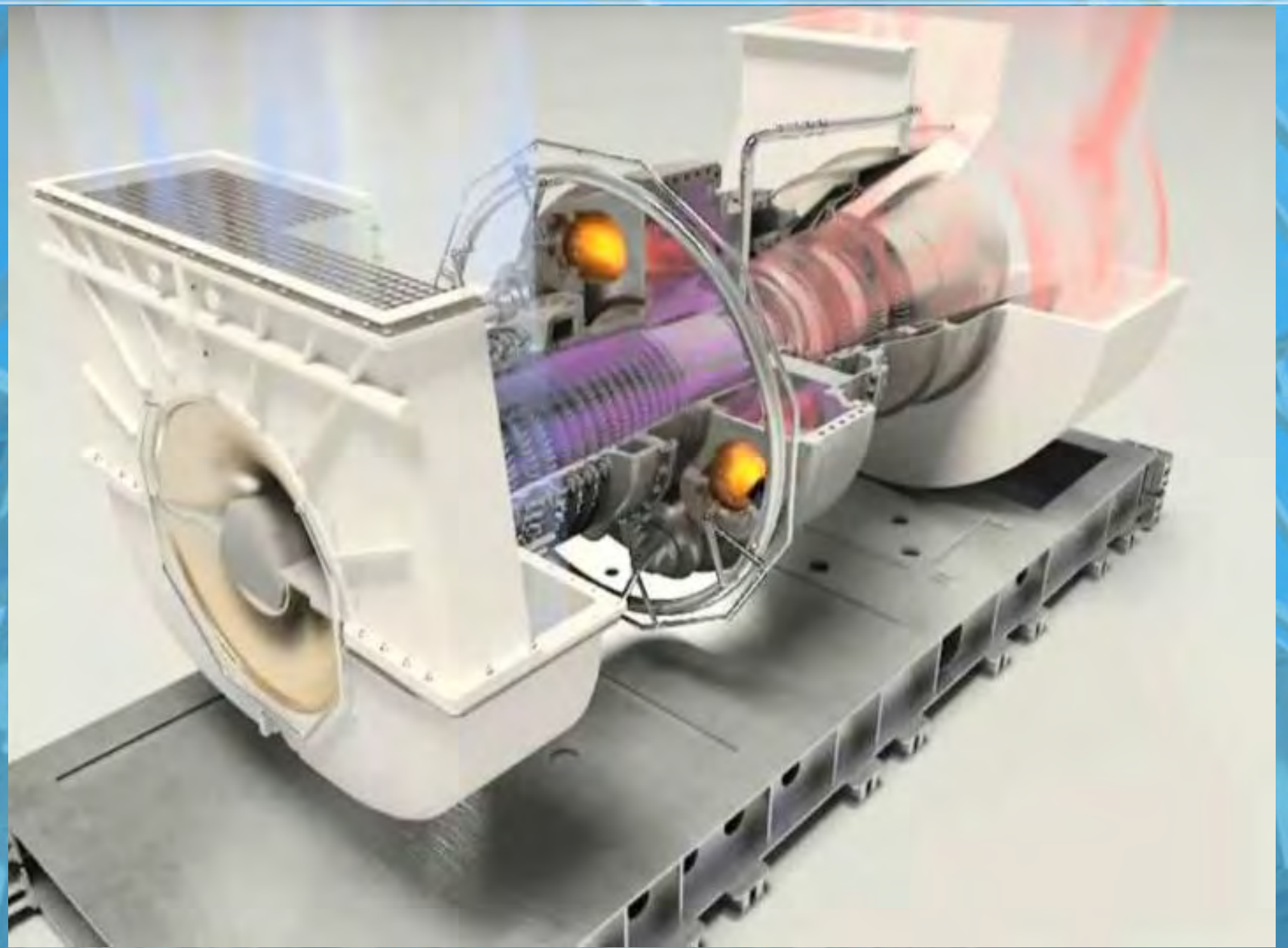


HOW IT WORKS

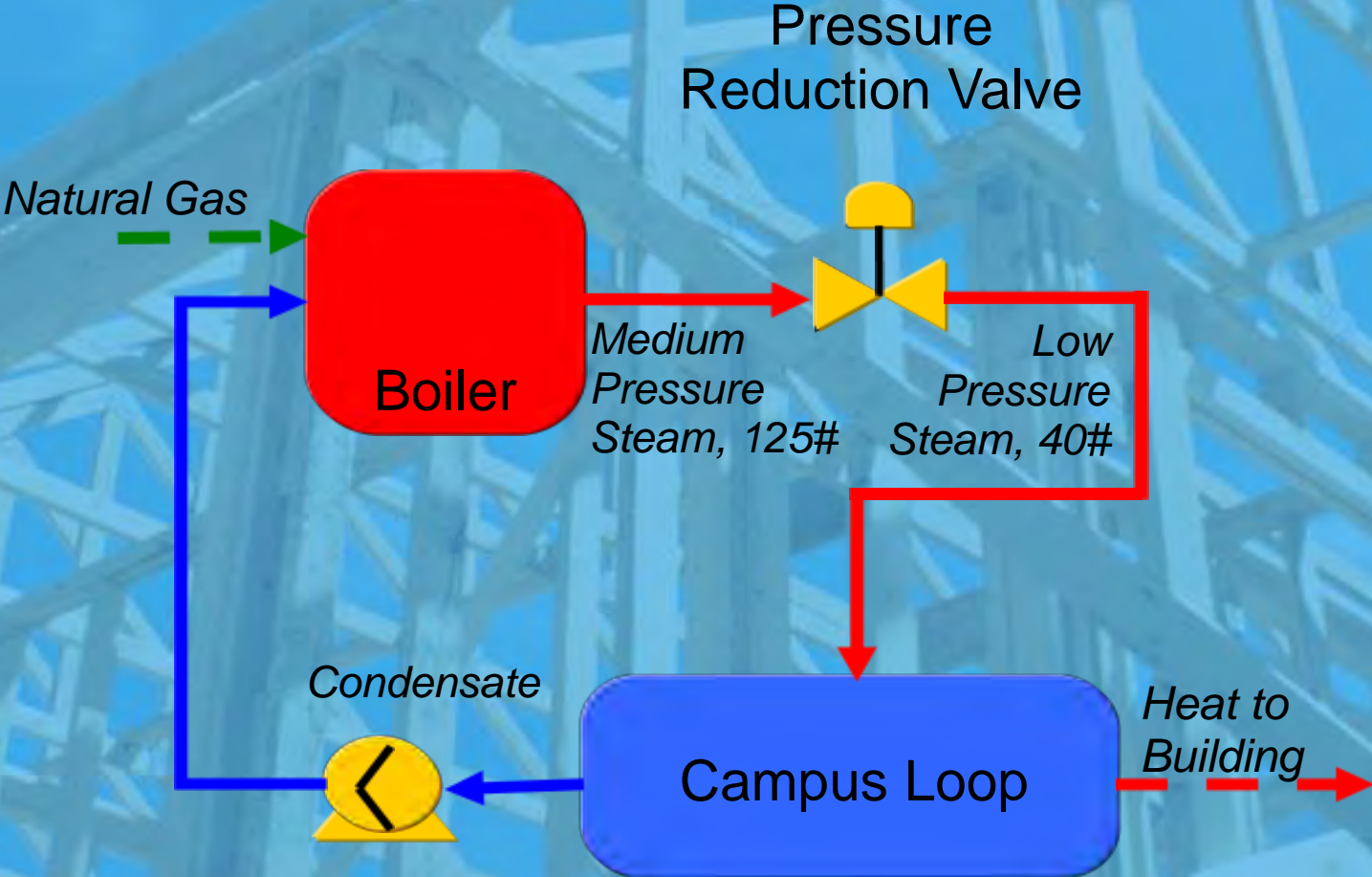
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## **COMBINED HEAT & POWER PLANT**

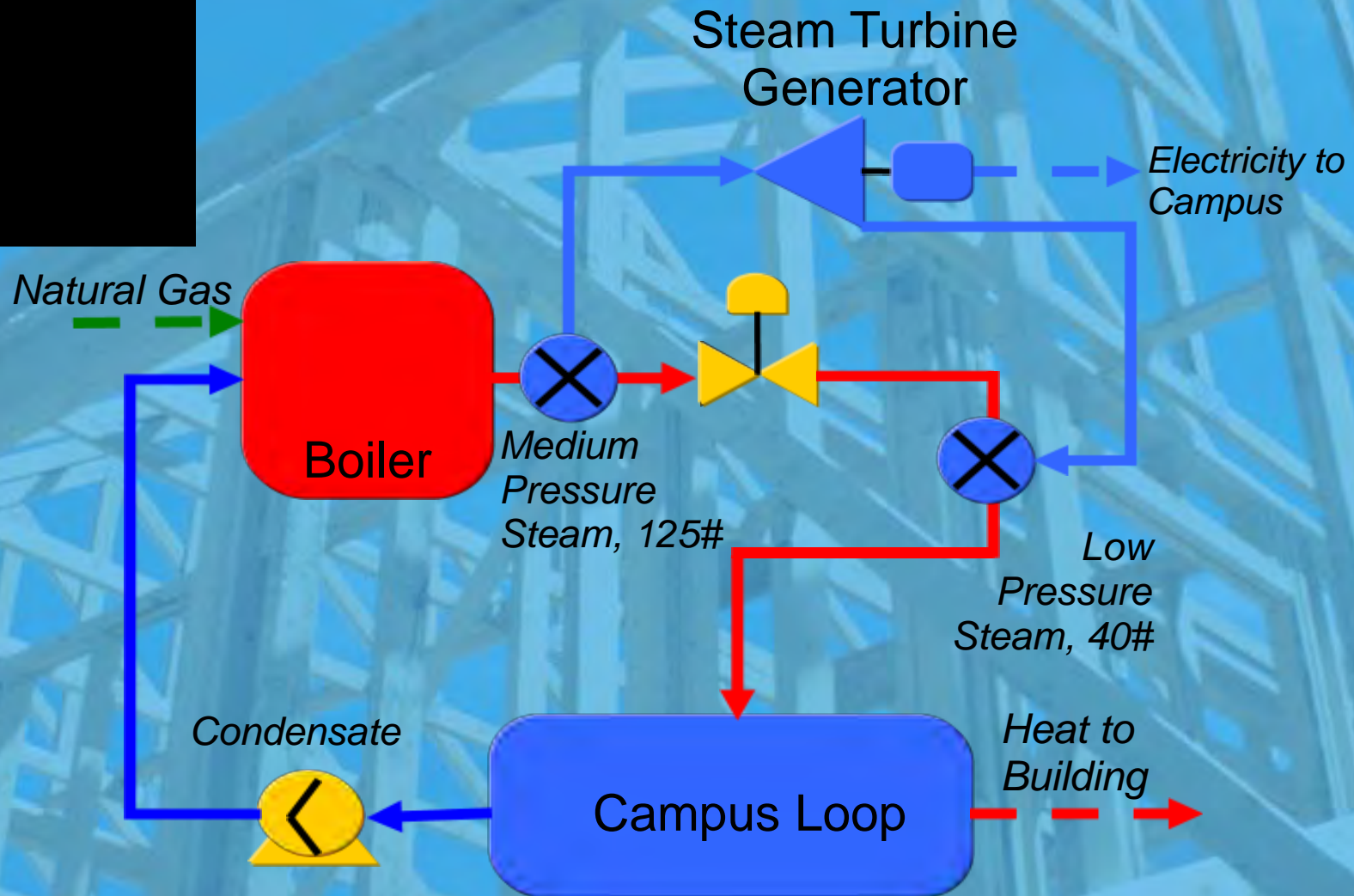
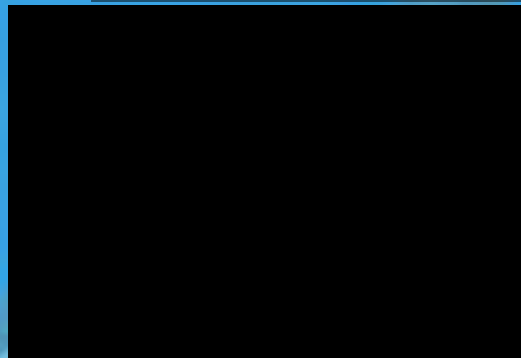
(CHP)



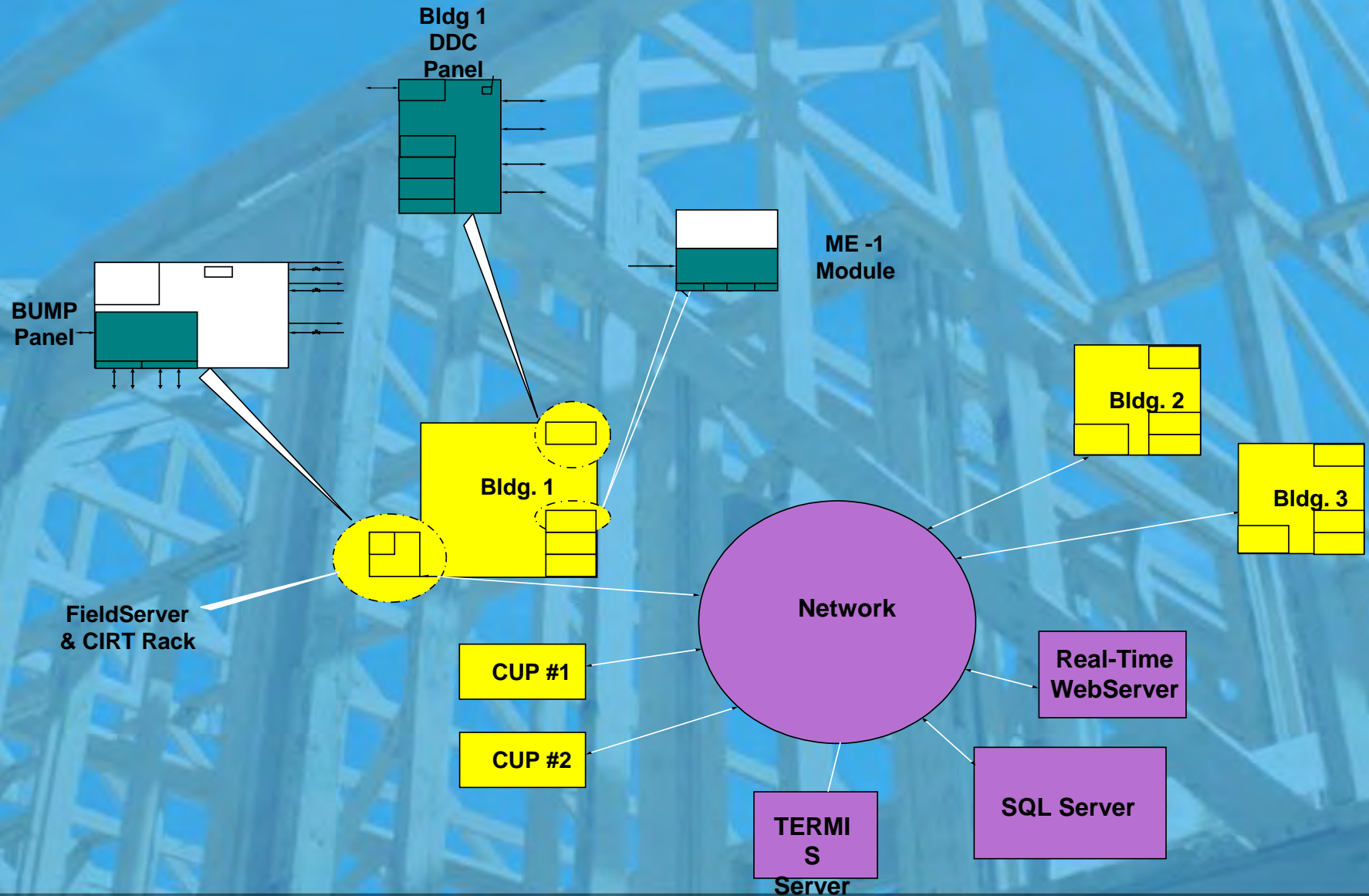
# Existing Piping



# Seizing the opportunity



# EMS Architecture



# University of New Mexico District Energy System

