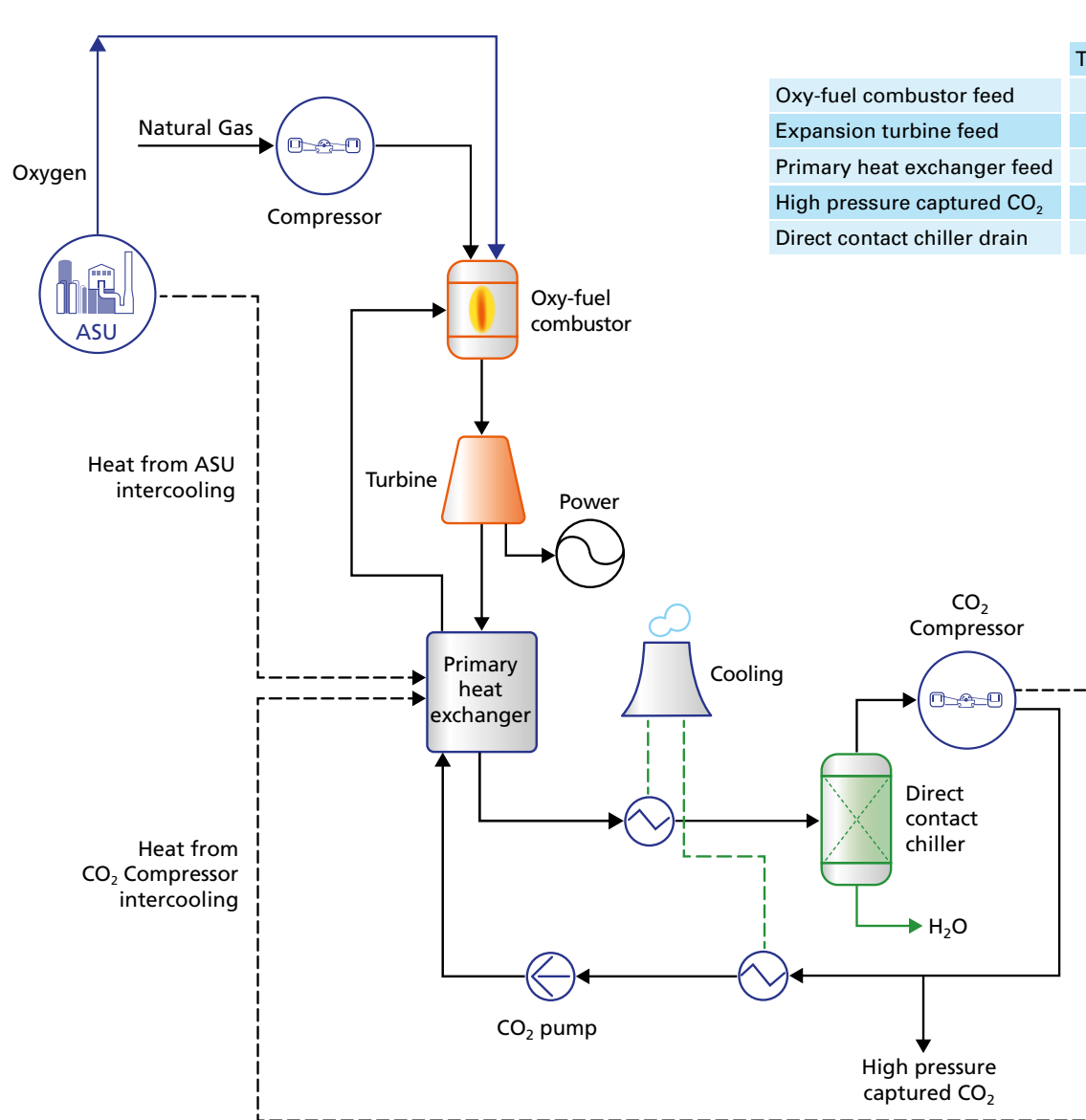


The Allam cycle for natural gas: oxy-fuel thermal power generation with integrated CO₂ capture



	Temperature °C	Pressure bar	Stream composition, referenced to combustor feed			
			CO ₂ wt%	Natural gas wt%	Oxygen wt%	H ₂ O wt%
Oxy-fuel combustor feed	700	300	94	1,25	4,75	0
Expansion turbine feed	1150	300	97,25	0	0	2,75
Primary heat exchanger feed	720	30	97,25	0	0	2,75
High pressure captured CO ₂	60	80	100	0	0	0
Direct contact chiller drain	20	30	0	0	0	100