



$m_1$  Natural gas from pipeline  
 $m_2$  Pre-heated natural gas  
 $m_3$   $\text{CH}_4 + \text{H}_2$  mixture  
 $m_4$   $\text{H}_2$  at reactor temp  
 $m_5$   $\text{H}_2$  at DRI shaft temp

$m_6$  Heated pellets  
 $m_7$  Hot DRI at 700 C  
 $m_8$  Molten steel at 1650 C  
 $m_9$  DRI exhaust  
 $m_{10}$   $\text{H}_2$  from DRI exhaust

$m_{11}$  Steam from DRI exhaust  
 $m_{12}$  Natural gas from PSA  
 $m_{13}$  EAF exhaust  
 EH Electrical heater  
 FH Gas fired heater