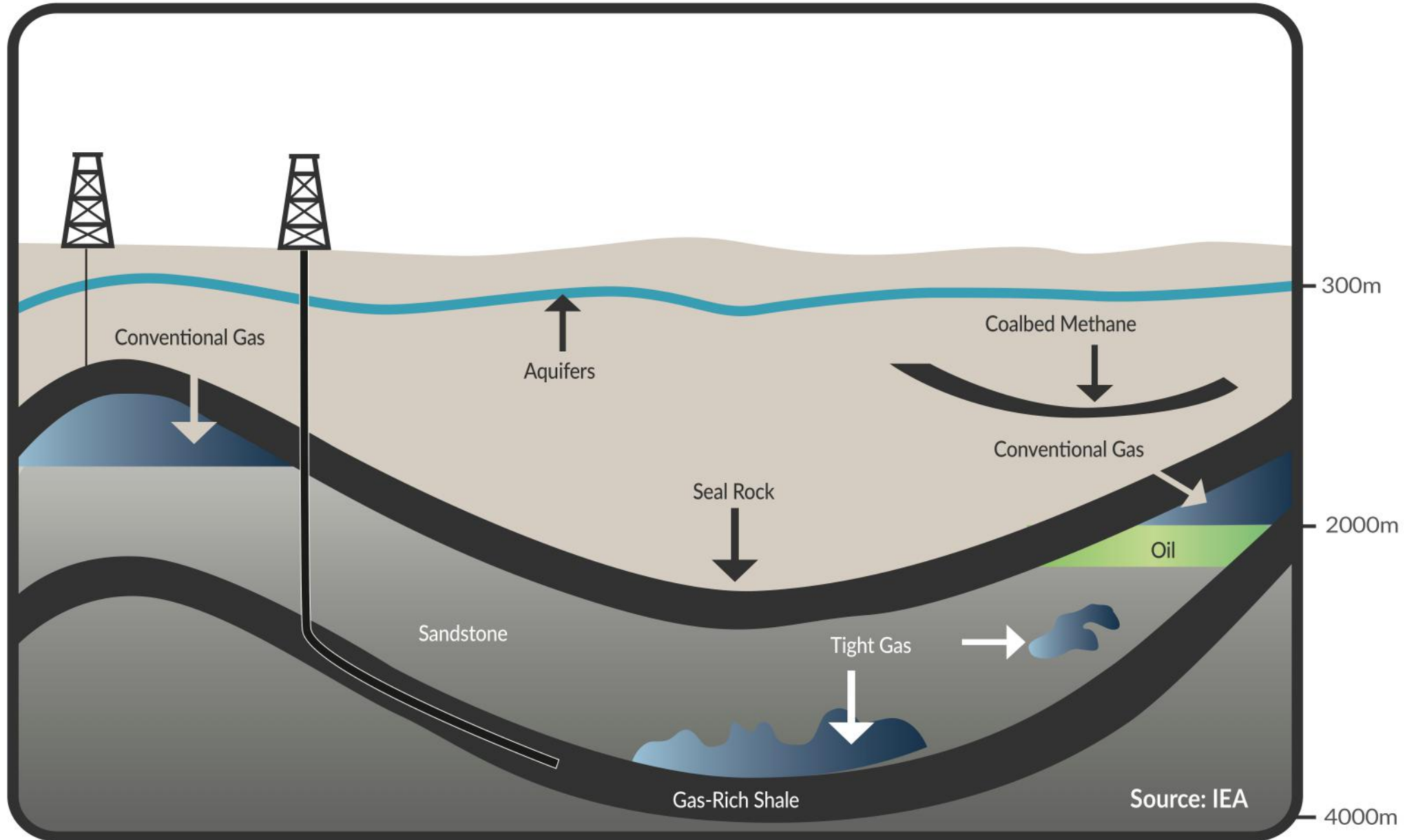
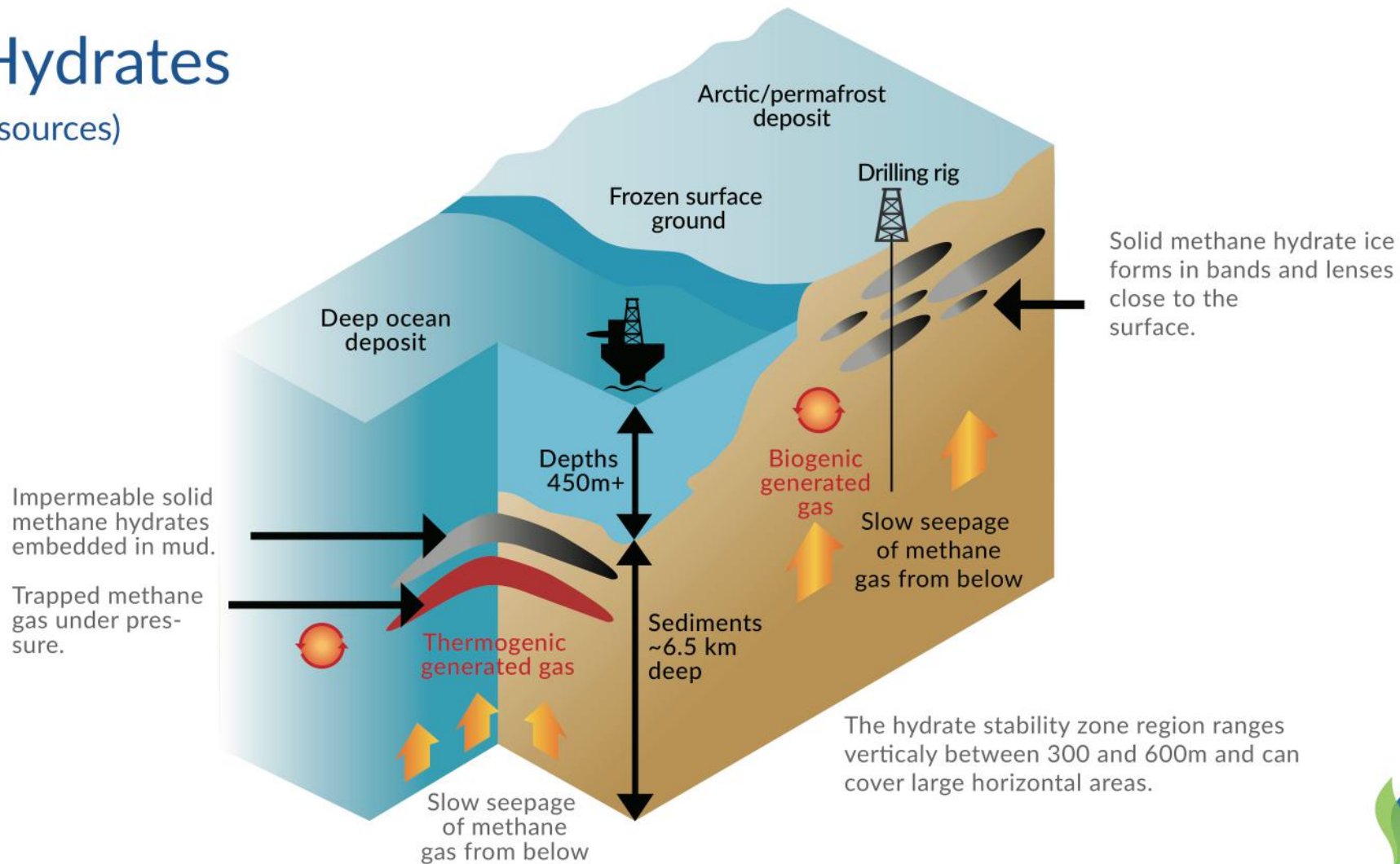


# Geology of Natural Gas Resources



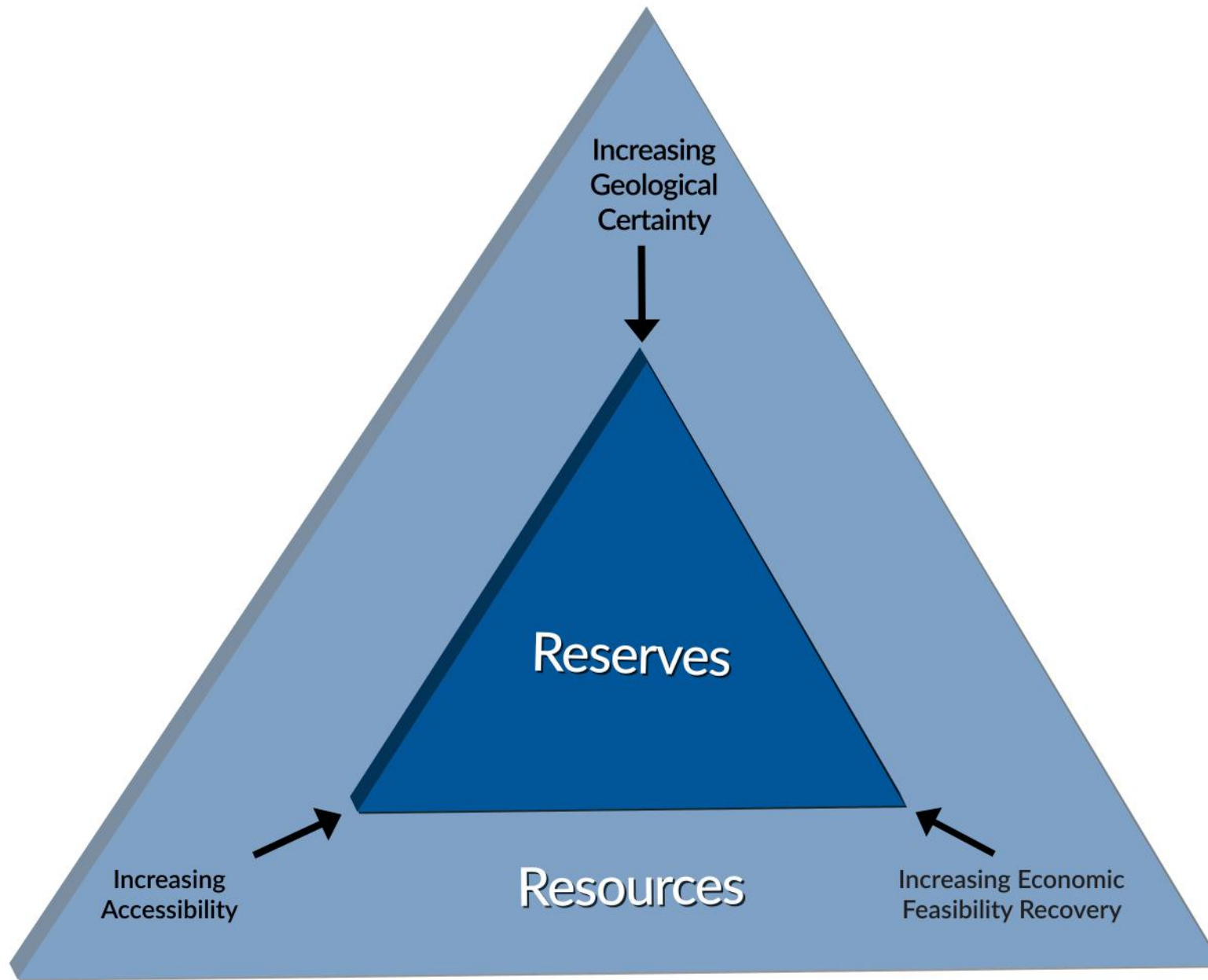
# Methane Hydrates

(Unconventional Resources)

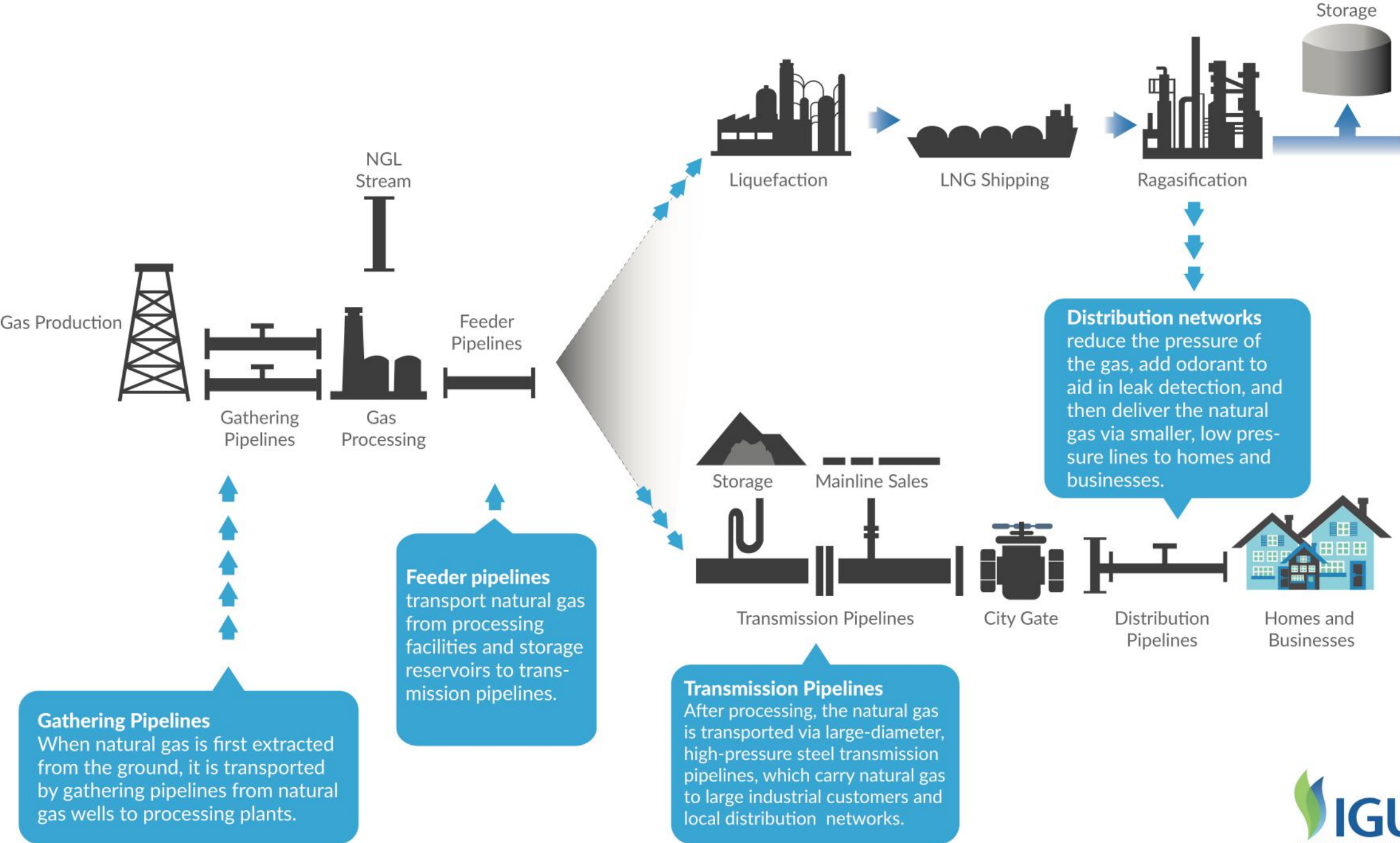


Source: Adapted from IEA

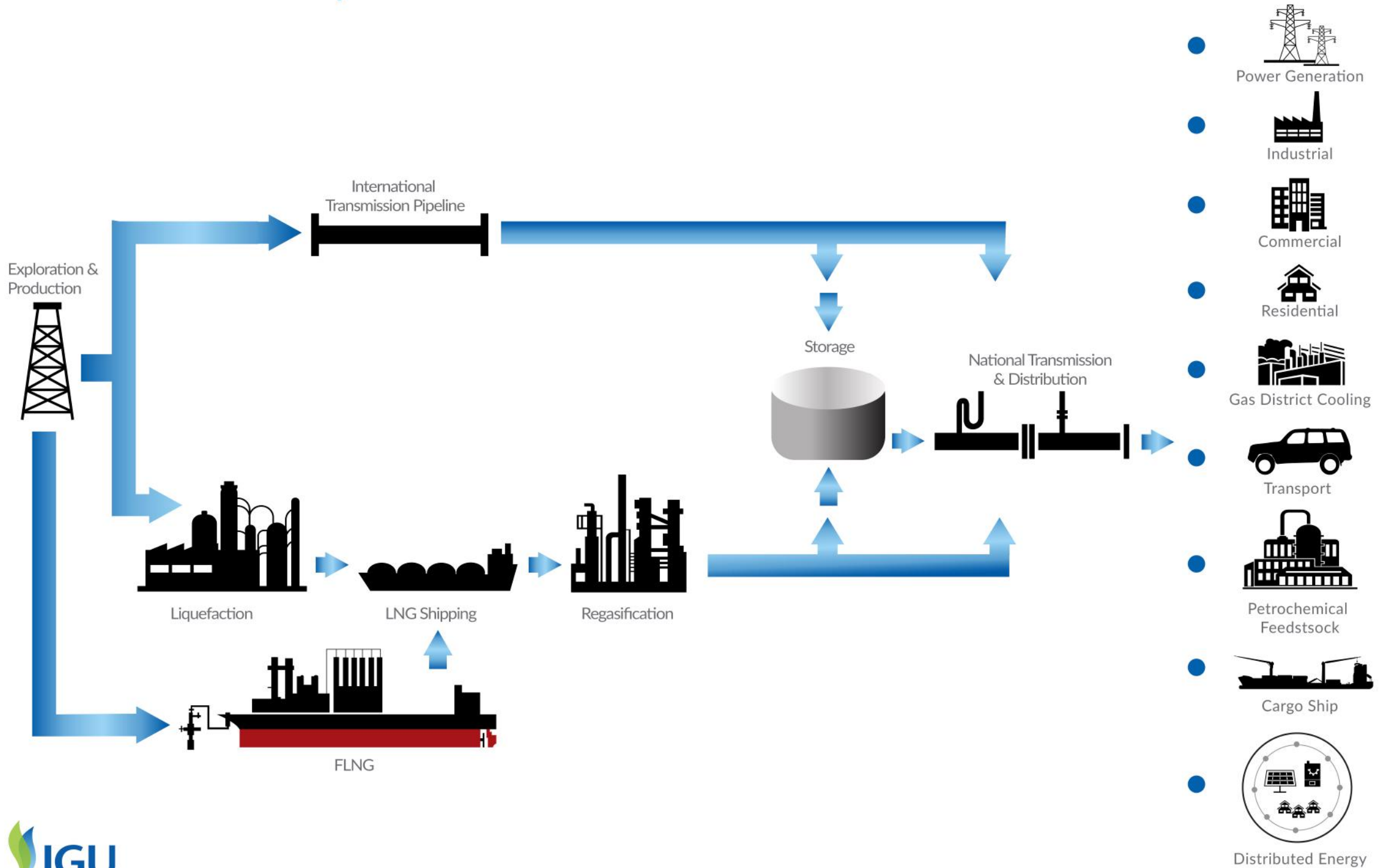
# Resources versus Reserves



# Movement of Natural Gas



# The Gas Industry Value Chain



# Unit Conversion Guide

|                                       | <b>m<sup>3</sup></b> | <b>cf</b>  | <b>MMBtu</b> | <b>GJ</b>  |
|---------------------------------------|----------------------|------------|--------------|------------|
| <b>From</b>                           | <b>Multiply by</b>   |            |              |            |
| Cubic Metres (m <sup>3</sup> )        | <b>1.0</b>           | 35.301     | 0.0353       | 0.0373     |
| Cubic Feet (cf)                       | 0.0283               | <b>1.0</b> | 0.001        | 0.001055   |
| Million British Thermal Units (MMBtu) | 28.3278              | 1000       | <b>1.0</b>   | 1.0551     |
| Gigajoules (GJ)                       | 26.853               | 947.817    | 0.9478       | <b>1.0</b> |

| <b>Units</b>                 |                 |                     |            |
|------------------------------|-----------------|---------------------|------------|
| 1 metric tonne               | = 2204.62 lb    | = 1.1023 short tons |            |
| 1 kilolitre                  | = 1 cubic metre | = 6.2898 barrels    |            |
| 1 kilocalorie (kcal)         | = 4.187 kJ      | = 3.968 Btu         |            |
| 1 kilojoule (kJ)             | = 0.239 kcal    | = 0.948 Btu         |            |
| 1 British Thermal Unit (Btu) | = 0.252 kcal    | = 1.055 kJ          |            |
| 1 kilowatt-hour (kWh)        | = 860 kcal      | = 3600 kJ           | = 3412 Btu |