

| | | | | | | | | | |
|--|--|--|--|--|-----------|--------------|--|--|--|
| Capital and replacement cost | | | | | S | | | | |
| Lifetime | | | | | S (years) | | | | |
| Reformer | | | | | | ✓ | | | |
| Capital and replacement cost | | | | | | S | | | |
| Operations and maintenance cost | | | | | | S | | | |
| Lifetime | | | | | | S (years) | | | |
| Efficiency | | | | | | S | | | |
| Hydrogen delivery cost | | | | | | S (\$/kg/km) | | | |
| Electrolyzer | | | | | | ✓ | | | |
| Capital and replacement cost | | | | | | S | | | |
| Operations and maintenance cost | | | | | | S | | | |
| Lifetime | | | | | | S (years) | | | |
| Efficiency | | | | | | S | | | |
| Minimum load ratio | | | | | | S | | | |
| Hydrogen tank | | | | | | ✓ | | | |
| Capital and replacement cost | | | | | | S | | | |
| Operations and maintenance cost | | | | | | S | | | |
| Set initial tank level | | | | | | S | | | |
| Option to require year-end tank level to equal or exceed initial level | | | | | | ✓ | | | |
| Hydrogen fuel cell | | | | | | ✓ | | | |
| Capital and replacement cost | | | | | | S | | | |
| Operations and maintenance cost | | | | | | S | | | |
| Maintenance scheduling | | | | | | S | | | |
| Operational scheduling | | | | | | S | | | |
| Lifetime | | | | | | S (years) | | | |
| Fuel curve | | | | | | ✓ | | | |

| Loads | HOMER Pro (main) | Add-on Modules | | | | | | | |
|------------------------|------------------|----------------|---------|-------|-------------------------|----------|---------------|------------------|-------------------|
| | | Advanced Load | Biomass | Hydro | Combined Heat and Power | Hydrogen | Advanced Grid | Advanced Storage | Multi-Year MATLAB |
| Electrical Load | 1 | 2 | | | | | | | |
| Scaled annual average | S | | | | | | | | |
| Variability | V | | | | | | | | |
| Deferrable Load | | 1 | | | | | | | |
| Scaled annual average | | S | | | | | | | |
| Storage capacity | | S | | | | | | | |
| Peak | | S | | | | | | | |
| Minimum load | | S | | | | | | | |

| | | | | | | | | | | | |
|--|------------------|--------------------------------------|---------|-------|-------------------------|----------|---------------|------------------|------------|--------|--|
| Expected inflation rate | ✓ | | | | | | | | | | |
| Project lifetime | ✓ | | | | | | | | | | |
| System fixed capital costs | ✓ | | | | | | | | | | |
| System fixed O&M costs | ✓ | | | | | | | | | | |
| Capacity shortage penalty | ✓ | | | | | | | | | | |
| Emissions | HOMER Pro (main) | Add-on Modules | | | | | | | | | |
| | | Advanced Load | Biomass | Hydro | Combined Heat and Power | Hydrogen | Advanced Grid | Advanced Storage | Multi-Year | MATLAB | |
| | | Carbon dioxide | ✓ | | | | | | | | |
| | | Carbon monoxide | ✓ | | | | | | | | |
| | | Unburned hydrocarbons | ✓ | | | | | | | | |
| | | Particulate matter | ✓ | | | | | | | | |
| | | Sulfur dioxide | ✓ | | | | | | | | |
| | | Nitrogen oxides | ✓ | | | | | | | | |
| Constraints | HOMER Pro (main) | Add-on Modules | | | | | | | | | |
| | | Advanced Load | Biomass | Hydro | Combined Heat and Power | Hydrogen | Advanced Grid | Advanced Storage | Multi-Year | MATLAB | |
| | | Maximum annual capacity shortage (%) | ✓ | | | | | | | | |
| | | Minimum renewable fraction (%) | ✓ | | | | | | | | |
| Operating reserve (as % of: current load, peak, solar, wind) | ✓ | | | | | | | | | | |

S – Sensitivity variable

V – Single value user-defined variable

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