# Table B-1: Combustor Design and Expected Performance

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| Design/Performance Parameter | Varying Fuel Type or Fuel Flow Conditions (several examples may be provided for the first 10 parameters) |
| Fuel flow (kg/hr): |  |
| Fuel higher heating value - as fired (kJ/kg): |  |
| Volumetric heat release (kJ/hr-m3) |  |
| Design excess air in combustor (%): |  |
| Design excess oxygen in combustor (%-dry): |  |
| Combustion air flow (kg/hr): |  |
| Wet flue gas flow (kg/hr): |  |
| Wet flue gas molecular weight: |  |
| Flue gas temperature – leaving furnace (oC): |  |
| Flue gas temperature – leaving combustor (downstream of the heat exchanger) (oC): |  |
| Estimated combustor retention time (seconds)(at flue gas temperature – leaving combustor): |  |
| Combustor design type: |  |
| Method of introduction and distribution of combustion air: |  |
| Method of introduction of wood fuel to combustion zone: |  |
| Method of unblocking wood fuel passage way between storage and combustor: |  |
| Method of controlling set-point to call for wood fuel feed to combustor: |  |

Notes:

1. Fuel flow is typically expressed as heat input based MW and then converted to kg/hr using the as-fired higher heating value.
2. Detailed engineering drawings, specifications and calculations should be submitted to the ministry to support ECA applications for new large wood-fired combustors to support the design and operating parameters are required for the evaluation. The drawings are not expected to be construction drawings but they should include details that are needed for verifying residence time estimates and identifying points where combustion air is introduced and monitoring locations.