|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **File .mat** | **Variable in file** |  |
| Water heater |  | Pow\_Tem\_WCon\_WH | Pow\_Tem\_WCon\_WH | Pow = Pow\_Tem\_WCon\_WH(2,:) |
| Tep\_water = Pow\_Tem\_WCon\_WH(3,:) |
| WateConsup = Pow\_Tem\_WCon\_WH(4,:) |
|  | Cost\_KW\_WH | Cost\_KW\_WH | Cost = Cost\_KW\_WH(2,:) |
| Power = Cost\_KW\_WH(3,:) |
| Furnace |  | Pow\_Cost\_AC  RoomsTemp | Pow\_Cost\_AC  RoomsTemp | Pow = Pow\_Cost\_AC(2,:) |
| PowTiem = Pow\_Cost\_AC(3,:) |
| Cost = Pow\_Cost\_AC(4,:) |
| RoomsTemp = RoomsTemp(2:5,:) |
| AC |  | Pow\_Cost\_AC  RoomsTemp | Pow\_Cost\_AC  RoomsTemp | Pow = Pow\_Cost\_AC(2,:) |
| PowTiem = Pow\_Cost\_AC(3,:) |
| Cost = Pow\_Cost\_AC(4,:) |
| RoomsTemp = RoomsTemp(2:5,:) |
| Stove |  | Cost\_KW\_Ran | Cost\_KW\_Ran | Pow = Cost\_KW\_Ran (2,:) |
| PowTiem = Cost\_KW\_Ran (3,:) |
| Cost = Cost\_KW\_Ran (4,:) |
| Lights | Total cost&Energy | Lighting\_Total\_LG | Detail\_kWhr\_Coshr\_LG | Detail =Detail\_kWhr\_Coshr\_LG(2,:) |
| Energy =Detail\_kWhr\_Coshr\_LG(3,:) |
| Costy =Detail\_kWhr\_Coshr\_LG(4,:) |
| Incandescent | Inc\_LG | kW\_Cos\_Inc\_LG | kW\_Cos\_Inc\_LG |
| CFL | CFL\_LG | kW\_Cos\_CFL\_LG | kW\_Cos\_CFL\_LG |
| CFL tubes | CFLTubes\_LG | kW\_Cos\_CFLTubes\_LG | kW\_Cos\_CFLTubes\_LG |
|  |  |  |  |  |
| Fridge | Cost\_KW\_Fridge | Cost\_KW\_Fridge | Cost\_KW\_Fridge | Pow = Cost\_KW\_Fridge(2,:)  Ener = Cost\_KW\_Fridge(3,:)  Cost = Cost\_KW\_Fridge(4,:) |
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Development of a smart grid residential load simulator for energy consumption calculations