

**Equivalence Partitions:**

kWh &lt;= 0

0 &lt; kWh &lt;= 500

500 &lt; kWh &lt;= 1500

kWh &gt; 1500

**Boundary Values:**

&lt; 0 : Invalid

0 &lt;= 500 : No rebate

500 &gt;= 1500 : 10% rebate or opt out

&gt; 1500 : 20% rebate and opt out

**Decision Table:**

| kWh Range  | Smart Thermostat | Opt - Out  | Expected Rebate        |
|------------|------------------|------------|------------------------|
| <= 0       | -                | -          | <b>IllegalArgument</b> |
| 0 - 500    | <b>Any</b>       | <b>Any</b> | <b>0%</b>              |
| 500 - 1500 | <b>F</b>         | <b>F</b>   | <b>0%</b>              |
| 500 - 1500 | <b>T</b>         | <b>F</b>   | <b>10%</b>             |
| 500 - 1500 | <b>F</b>         | <b>T</b>   | <b>10%</b>             |
| 500 - 1500 | <b>T</b>         | <b>T</b>   | <b>15%</b>             |
| > 1500     | <b>F</b>         | <b>F</b>   | <b>5%</b>              |
| > 1500     | <b>T</b>         | <b>F</b>   | <b>5%</b>              |
| > 1500     | <b>F</b>         | <b>T</b>   | <b>5%</b>              |
| > 1500     | <b>T</b>         | <b>T</b>   | <b>20%</b>             |