WIND FARM
ENERGY IN
NEW ZEALAND

By Matthew Hill
<table>
<thead>
<tr>
<th>Rank</th>
<th>Farm Name</th>
<th>Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>Mahinerangi</td>
<td>36</td>
</tr>
<tr>
<td>9.</td>
<td>Mill Creek</td>
<td>59.8</td>
</tr>
<tr>
<td>8.</td>
<td>Te Uku</td>
<td>64.4</td>
</tr>
<tr>
<td>7.</td>
<td>White Hill</td>
<td>58</td>
</tr>
<tr>
<td>6.</td>
<td>Tararua (Stage 3)</td>
<td>93</td>
</tr>
<tr>
<td>5.</td>
<td>Tararua (Stage 1)</td>
<td>31.7</td>
</tr>
<tr>
<td>4.</td>
<td>Tararua (Stage 2)</td>
<td>36.3</td>
</tr>
<tr>
<td>3.</td>
<td>Te Apiti</td>
<td>90.8</td>
</tr>
<tr>
<td>2.</td>
<td>West Wind</td>
<td>142.6</td>
</tr>
<tr>
<td>1.</td>
<td>Te Rere Hau</td>
<td>48.5</td>
</tr>
</tbody>
</table>
10. MAHINERANGI

• Commissioned in 2011.
• Initially operated by TrustPower, now Tilt Renewables.
• Located in Clutha, NZ.
• 12, 3 MW turbines capable of generating 36 MW of power.
• Large potential for expansion.
9. MILL CREEK

- Commissioned in 2014.
- Operated by Meridian Energy.
- Located in Wellington, NZ.
- 26, 2.3 MW turbines capable of producing 59.8 MW of power.
8. TE UKU

• Commissioned in 2011.
• Operated by Meridian Energy.
• Located in Waikato, NZ.
• 28, 2.3 MW wind turbines capable of producing up to 64.4 MW of power.
• Great place to see some black faced sheep.
7. WHITE HILL

- Commissioned in 2007.
- Operated by Meridian Energy.
- Located in Southland, NZ.
- 29, 2 MW turbines capable of generating 58 MW of power.
6. TARARUA - STAGE 3

- Commissioned in 2007.
- Operated by TrustPower.
- Located in Manawatu, NZ.
- 31, 3 MW turbines capable of generating 93 MW of power.
- Stage 3 made the farm one of the three farms connected to the energy grid.
5. TARARUA – STAGE 1

- Commissioned in 1999 and operated by TrustPower.
- Located in Manawatu, NZ.
- 48, 0.66 MW turbines capable of generating 31.7 MW of power.
- Could look into updating their equipment, but have taken a better step.
4. TARARUA – STAGE 2

- Commissioned in 2004.
- Operated by TrustPower.
- Located in Manawatu, NZ.
- 55, 0.66 MW turbines capable of producing 36.3 MW of power.
3. TE APITI

- Commissioned in 2004.
- Operated by Meridian Energy.
- Located in Manawatu, NZ.
- 55, 1.65 MW turbines capable of producing 90.8 MW of power.
- Another farm that has grid connection.
2. WEST WIND

- Commissioned in 2009 and operated by Meridian Power
- Located in Wellington, NZ
- 62, 2.3 MW turbines capable of producing 142.6 MW of power
- Is connected to the energy grid.
1. **TE RERE HAU**

- Commissioned from 2006 - 2011
- Operated by NZ Windfarms
- Located in Manawatu
- 97, 0.5 MW turbines capable of producing 48.5 MW of power.
CONCLUSION AND POTENTIAL FUTURE FARMS

• There are a number of wind farms that implement outdated equipment.

• White Hill and Te Rere Hau are two that could stand to implement better technology.

• Another alternative may be to apply for consent to expand and add new technology, as done at the Tararua wind farm.
QUESTIONS AND COMMENTS