

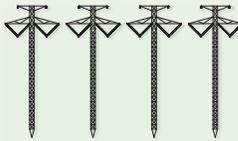
# Direct Current technology is best for the TransWest Express Transmission Project



**Generation**  
Wyoming



**Substation Converter**  
Wyoming



**DC Transmission Line**  
Over 700 miles

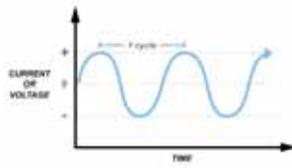
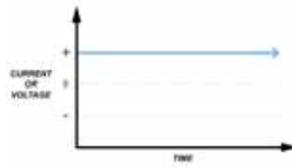


**Substation Converter**  
Nevada



**Customers**  
Arizona, Nevada, California

## Differences between transmission technologies

	Alternating Current (AC)	Direct Current (DC)
<b>Technical difference</b>		
<b>Common uses</b>	<ul style="list-style-type: none"> <li>Household wiring</li> <li>Most electrical utility systems</li> </ul>	<ul style="list-style-type: none"> <li>Battery powered devices</li> <li>Long distance electric transmission</li> </ul>
<b>Line design</b>	 <p>Six conductor bundles for 3,000 MW</p>	 <p>Two conductor bundles for 3,000 MW</p>
<b>Station design</b>	<ul style="list-style-type: none"> <li>Several substations located every 50-75 miles</li> </ul>	<ul style="list-style-type: none"> <li>Two substations and AC/DC converters located at either end of the line</li> <li>Ground electrode backup system</li> </ul>
<b>System costs</b>	<ul style="list-style-type: none"> <li>Relatively expensive lines</li> <li>Lower substation costs</li> <li>Less efficient over greater distances</li> </ul>	<ul style="list-style-type: none"> <li>Less expensive lines</li> <li>Fewer but more expensive substations</li> <li>More efficient over greater distances</li> </ul>