The challenge
Improve cooling duties in an existing power plant and reduce fresh water consumption and blowdown.

The solution
Use blowdown from an existing cooling tower as makeup water in a Niagara Wet Surface Air Cooler (WSAC®).

Advantages
- Increase cooling duties
- Reduce fresh water consumption
- Improve existing cool tower capacity
- Increase power plant output
- Reduce total system makeup water and blowdown

What is a WSAC?
Alfa Laval Niagara Wet Surface Air Coolers (WSAC®) are efficient closed-loop, evaporative cooling systems designed for the power, process, wastewater, natural gas and petrochemical industries.

These fluid cooling and vapor condensing systems are optimized for industrial applications where rugged designs, and cost-effective, efficient closed-loop cooling and condensing duties are required.
Application diagram

![Application diagram](image_url)

**WATER FLOW RATES**

<table>
<thead>
<tr>
<th></th>
<th>MAKEUP</th>
<th>BLOWDOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXISTING SYSTEM</td>
<td>2280 gpm</td>
<td>380 gpm</td>
</tr>
<tr>
<td>MODIFIED SYSTEM</td>
<td>2160 gpm</td>
<td>260 gpm</td>
</tr>
<tr>
<td>REDUCTION</td>
<td>120 gpm</td>
<td>120 gpm</td>
</tr>
</tbody>
</table>

**ASSUMPTIONS:**

- 525 MW COMBINED CYCLE PLANT
- 6 CYCLES OF CONCENTRATION IN OPEN TOWER
- 8000 HRS/YR OF OPERATION

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Alfa Laval reserves the right to change specifications without prior notification.

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Please visit www.alfalaval.com to access the information directly.