Australia does not have a nuclear power industry; nuclear related activities/industries include:

- Expanding uranium mining industry; three mines operating and a further three scheduled to begin production in the near future.
- Seven cyclotrons for radiopharmaceutical production
- Operation of a 20MW research reactor (OPAL) for radioisotope production, NTD Silicon and thermal/cold neutrons (ANSTO)
## ANSTO overview

<table>
<thead>
<tr>
<th>Formed in 1953</th>
<th>HIFAR critical 1958</th>
</tr>
</thead>
<tbody>
<tr>
<td>$&gt;1$ billion assets under management</td>
<td>Annual turnover $&gt;350$ million</td>
</tr>
<tr>
<td>Circa 1200 employees; 300 Ph.D.’s</td>
<td>OPAL Reactor Critical 2006</td>
</tr>
</tbody>
</table>
OPAL Research Reactor

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 MW Open Pool Australian Light water reactor</td>
<td>Light water cooled and moderated</td>
</tr>
<tr>
<td></td>
<td>Heavy water reflector</td>
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<td></td>
<td>Compact core consisting of 16 fuel assemblies</td>
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<tr>
<td></td>
<td>Nuclear medicine, neutron science and silicon irradiation</td>
</tr>
<tr>
<td></td>
<td>Celebrating 10 years of operation</td>
</tr>
</tbody>
</table>
Australian Research Reactor History

5 HIFAR 1958-2007

MOATA 1961-1995

OPAL 2006 - Present
ANSTO Nuclear Medicine

- Fully operational Q1 2018
- Mo-99 facility; 3,500 6 day Ci per week
- Proven, reliable, LEU-LEU technology
- Integrated operations with OPAL Reactor
- 25% of World Mo-99 demand
- World’s first full scale Synroc waste treatment plant

Mo-99 Facility

ANM

Synroc Waste Treatment Plant

Synroc Waste Plant

SyMo
OPAL Operations

OPAL Operating Days at Power CY's (2006 - 2016)

Total Power Days

OPAL - Criticality 12 Aug 2006

ACTUAL Operating Days

High availability, high reliability
Thank you