National Decommisioning Research Initiative

NDRI Background

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1. Australian Decommissioning Research Collaboration

Australia has an estimated decommissioning liability of $30 billion through to 2050, which the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) estimates includes 36 fixed platforms, 3,484 kilometres of pipeline and more than 900 wellheads.

The National Decommissioning Research Initiative (NDRI) has been formed to commission and publish independent scientific research to improve the understanding of the importance of infrastructure in the Australian offshore marine environment.

The NDRI represents the fourth collaboration by the Australian oil and gas industry into decommissioning research:

Advisian: Environmental Impacts of Decommissioning Options

In 2017, Advisian (part of the WorleyParsons group) released the report 'Scientific Literature Review: Environmental Impacts of Decommissioning Options'.[1]

The key objectives of this study were to review relevant literature and technical studies with regard to:

- Decommissioning options and techniques;
- The impacts of oil and gas infrastructure on marine biodiversity;
- The risks and benefits of decommissioning options to biodiversity, fisheries, shipping, tourism and human health;
- Potential impact controls and environmental monitoring considerations for decommissioning;
- and Frameworks for the assessment of decommissioning options.

Cooperative Research Centre for Decommissioning Offshore Infrastructure

Also in 2017, a large number of organisations were involved in the proposal to develop a Cooperative Research Centre for Decommissioning Office Infrastructure (CRC-DOI).

CRC-DOI was structured with five programs: scientific evidence to enable decommissioning alternatives; innovation to minimise risk and cost and build local capability; maximising environmental, social and economic benefits of decommissioning; streamlining of decision making processes and regulation; and, education, training and community engagement. This proposal ultimately did not proceed.

WA Marine Science Institute: Stakeholder Perspectives of Decommissioning

In January 2018, the WA Marine Science Institute (WAMSI) released a final version of its report 'Decommissioning offshore infrastructure: a review of stakeholders views and science priorities'.[2] Approximately 190 potential stakeholders were identified

[1] https://www.appea.com.au/wp-content/uploads/2017/08/Final-Advisian-Decommissioning-Report.pdf

[2] https://www.wamsi.org.au/sites/wamsi.org.au/files/files/Decommissioning%20offshore%20infrastructure%20-%20a%20review%20of%20stakeholder%20views%20and%20science%20priorities_%20Shaw%20et%20al_%20%202018_Final.pdf

from across State and Commonwealth Government, research organisations, fisheries, tourism, conservation, indigenous and other community groups.

From interviews with these groups, more than 900 issues, gaps and opportunities were captured. Priority science questions arising were:

- What are the direct environmental impacts on fish species including from contamination, noise, habitat removal and cumulative ecological effects?
- What is the timeframe for breakdown (corrosion) of the various standard components of oil and gas infrastructure?
- What are the main contaminants following decommissioning, will they be released into the environment, and what are the toxicity issues?
- Can the contaminants resulting from decommissioning be completely removed e.g. from sludge, scale, sands and drill cuttings?
- Does oil and gas infrastructure (pipelines and jackets) increase productivity of key fish species and biodiversity generally?

These key questions have informed the proposed research direction for the NDRI.

National Decommissioning Research Initiative

Following efforts to establish the CRC for decommissioning research, industry participants re-committed funding to a collaborative industry-led research initiative for an initial period of three years.

Participants indicated a preference to base the collaboration on the INSITE North Sea (www.insitenorthsea.org) platform, which was viewed as a successful model.

In 2018, the National Decommissioning Research Initiative (NDRI) was established under National Energy Resources Australia (NERA), the Australian Government's growth centre for energy resources.

2. The NDRI Research Program

The NDRI's objective is to commission and publish independent scientific research which improves the understanding of the importance of infrastructure in the Australian offshore marine environment, with particular regard to:

1. The impact that purpose built structures have on the extent of life in the marine environment.
2. The impact of contaminants on the marine environment, including the influence of material degradation processes over time.
3. The value created through retaining infrastructure within the marine ecosystem.

An Expression of Interest will be advertised in mid-2019 to invite short research proposals which can contribute to the understanding of these priorities. Applications which are successful through the EOI process will be invited to submit a detailed application.