Engineers Australia

Media Release

18/09/24

***** UNDER EMBARGO UNTIL 6:30PM WEDNESDAY 18 SEPTEMBER****

Final report launch:
Making a Clean Transition
Transferability of engineering skills for the clean energy transition

New report reveals clear pathways for engineers transitioning to renewable energy sector

Engineers Australia has today released its final ***Making a Clean Transition*** report, providing clear advice to employers, workers, government and training providers for transitioning engineers from thermal industries to the growing renewable energy sector. Building on earlier insights, the report highlights the crucial role that transferable skills, flexible training pathways, and coordinated policy support will play in achieving Australia's net zero emissions goals.

Engineers, with their problem-solving mindsets and deep technical expertise, are the key to driving the net zero transformation. The research, conducted in partnership with Mott MacDonald, confirms that while many engineers will transition smoothly to the growing clean energy sector, others need more support.

Engineers Australia Chief Engineer Bernadette Foley said the final report offers concrete solutions to one of the country's most pressing workforce challenges.

"We have seen that engineers with experience in thermal industries are well-positioned to take on new roles in renewables. This report gives us confidence that, supported by the right training pathways and coordinated policies, we can ensure these professionals continue to thrive in a net zero economy," said Ms Foley.

Summary of report key findings:

1. **Engineers possess transferable knowledge, skills, mindsets and capabilities**
   The report confirms that employers are increasingly prioritising engineers' mindset and adaptability over discipline-specific expertise. Many core engineering skills, such as systems thinking and project management, are highly transferable from thermal to renewable energy roles. However, expanding capabilities in areas like stakeholder management and community engagement is crucial. Some highly specialised roles, such as grid engineers, remain challenging to fill due to limited transferability and a shortage of experienced professionals.

2. **Building the engineering labour force remains a key challenge**
   With global competition for engineering talent intensifying, Australia must focus on re-engaging underutilised segments of its engineering workforce, particularly women, older engineers, and skilled migrants. Promoting the environmental and social impact of renewable energy roles in job ads can attract talent, while addressing salary disparities and offering flexible working conditions can improve job satisfaction and workforce stability.

3. **Location will continue to play a role in the capacity to attract workers**
   The report highlights the importance of creating clean energy jobs in existing thermal energy communities to minimise disruption for workers and their families. Engineers are more likely to remain in the profession if they can transition to renewable roles without relocating. Leveraging remote work and automation technologies can further enhance flexibility and retention in these communities.

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4. **Policy drivers are supporting innovation but need coordination**
   Governments are encouraged to better define and classify new roles in the renewable sector to support workforce transitions. Consistent and stable policy settings are needed to encourage investment and innovation in clean energy projects and transition plans. Alignment across federal, state, and local government initiatives will be critical for ensuring Australia can meet its net zero commitments.

5. **Training pathways are still needed**
   Embedding sustainability across all engineering courses is seen as more beneficial than bespoke clean energy engineering degrees for future engineers. Offering micro-credentials that demystify jargon, and standards will equip transitioning engineers with the skills needed for the renewable sector. These credentials can help bridge gaps between sectors by providing targeted, practical training, allowing workers to gain confidence in new industries.

Ms Foley emphasised the importance of coordinated action across government and industry: "Australia is at a pivotal moment. We have a generational opportunity to shape a workforce that can lead the world in clean energy. Investing in our engineers and providing them with the tools to succeed will be key to a sustainable and prosperous future."

Key recommendations:

- Employers can support transition pathways through diverse continual professional learning and interim roles, and tailor recruitment to highlight the transferable skills engineers already possess, re-engage qualified engineers, and promote the purpose-driven opportunity to work in clean energy.
- Governments should continue to undertake skills mapping and showcase the similarity in roles, consider location and the local workforce when investing in clean energy initiatives, and support skills recognition and familiarisation training in clean energy. Policies that align across all levels of government will drive workforce expansion, innovation, and investment in renewable energy.
- Training providers continue to ensure all engineering courses include sustainability alongside foundational engineering skills, and work with industry to promote training pathways and work experience opportunities.

Report attached. DOWNLOAD Link will be live from 6:30pm Wednesday 18 September

Interview opportunities:

- Engineers Australia Acting Chief Engineer Bernadette Foley

Ends.

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