SMART ENERGY COUNCIL

Joint Standing Committee on Migration
migration@aph.gov.au

Migration, Pathway to Nation Building

Introduction

The Smart Energy Council welcomes the opportunity to provide a submission to the Joint Standing Committee on Migration's inquiry into Migration, Pathway to Nation Building.

The Smart Energy Council (SEC) is the peak independent body for Australia's smart energy industry, representing over 950 household, commercial and large-scale renewable energy generation and storage, renewable hydrogen, and smart transport companies.

SEC's registered mission is to protect the environment through the use of renewable energy technologies, which it has been pursuing for over 65 years since its inception. The SEC has moved from strength to strength and now finds itself at the heart of one of the most exciting and existential challenges of Australia's colonial history - the urgent transition of our nation's economic energy base from fossil fuels to renewables.

Context and Scope

The SEC and its members know we can have a strong economy *and* a safe climate, but Australia currently has significant capacity constraints in terms of workforce numbers and skills; the Smart Energy Industry is not alone in the call-out for more workers.

If we are going to achieve our Nationally Determined Contribution of at least 43% emissions reductions (on 2005 levels) by 2030 we need an uptick in skills, capability and the overall capacity of the Australian workforce.

Without government policies and programs to attract, embed and grow new Australians into our domestic workforce, we will fall short of delivering on our national climate commitments.

Quite literally, the future of the Australian economy and the safety of our climate is predicated on our ability to fill the estimated 600,000 positions required to deliver this ambitious economy-wide transition by 2030. It is estimated that current smart energy industry numbers sit at around 120,000.

The SEC views migration as one important pathway to nation building and a safe climate. We also need to significantly increase the number of apprentices in this field - and the Australian Government's New

Energy Apprenticeships Program will be an important contributor to this - and particularly increase the participation of women in the smart energy workplace.

The submission relates to the following areas of the Inquiry's Terms of Reference:

7. Other related matters that may assist the inquiry.

Key Points

The scope of the workforce challenge cannot be understated.

The lack of workers is existential to life on Earth

According to Reputex's modelling of the Government's Powering Australia policy to transform Australia's energy grid to 82% renewable by 2030 (to meet our national ambition of reducing greenhouse gas emissions by at least 43%), 600,000 direct and indirect workers are required by 2030.

The SEC is very concerned that by 2030, without significant intervention and investment, the total workforce deficit will cripple efforts to transform our energy network.

Some reports indicate there is a shortfall of up to 15,000 electricians in the system right now and potentially 41,000 engineers; this does not account for the jobs required throughout to support those roles[1]. Notably, there is almost no data available on shortfalls in manufacturing because most of our renewables are manufactured offshore.

Migration is an important policy lever to assist with the workforce shortage for the smart energy sector.

Smart Energy is the sector that keeps on giving

There are obvious benefits for Australia in a smart energy future. Several studies have placed dollar value estimates on what a climate transition coupled with a clear industry plan could mean for the Australian economy. The Investor Group on Climate Change (IGCC) September 2022 report lists these as:

- Deloitte Access Economics found Australia would grow its economy by $680 billion, increase GDP by 2.6 percent and add 250,000 jobs by 2070 by adopting a comprehensive transition approach.[2]

[1] Infrastructure Australia (2021, Oct), Market Capacity for electricity generation and transmission projects, https://www.infrastructureaustralia.gov.au/sites/default/files/2022-05/Market%20Capacity%20for%20Electricity%20Infrastructure%20220511.pdf

[2] Deloitte Access Economics (2020), A new choice: Australia's climate for growth, https://www2.deloitte.com/content/dam/Deloitte/au/Documents/ Economics/deloitte-au-dae-new choice-climate-growth-051120.pdf?nc=1

- The Grattan Institute found Australia is well positioned to develop an export green steel industry, and that capturing 6.5 percent of global trade would generate $65 billion in export earnings, creating 25,000 manufacturing jobs in NSW and Queensland[3].
- ACIL Allen forecast that Australian hydrogen exports could be worth up to $5 billion by 2040[4].
- The Office of the Chief Economist projected that by the end of 2025–26, a surge in Australian export earnings of metals used in technologies central to the global energy transition – copper, lithium, and nickel – will replace the fall in thermal coal earnings arising from the net zero emissions transition[5].

By broadening and deepening the pathways for migrants - skilled, semi-skilled and unskilled - Australia improves its chances of delivering on its national climate change commitments which further assists in improving our energy security and putting our economy onto a sustainable footing for the medium to long-term.

Smart Energy Council is here to help

The smart energy workforce - solar, battery storage, energy efficiency, smart energy management, electric vehicles and renewable hydrogen - should be specifically identified as a priority area for skilled migration.

The SEC's own skill set does not extend to policy levers for improving workforce via migration, but we offer our 950+ mostly small and medium-sized business members as collaborators in paving the way.

Should you wish to discuss this further, contact me on [redacted].

Wayne Smith

External Affairs Manager
Smart Energy Council on Ngunnawal country
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[3] Grattan Institute (2020), Start with steel: A practical plan to support carbon workers and cut emissions, https://grattan.edu.au/report/start-with-steel/
[4] ARENA (2018), Opportunities for Australia from hydrogen exports, https://arena.gov.au/assets/2018/08/opportunities-for-australia-from-hydrogenexports.pdf
[5] Department of Industry, Science, Energy, and Resources (2021, March), Resources and Energy Quarterly, https://publications.industry.gov.au/publications/ resourcesandenergyquarterlymarch2021/index.html