



21 November 2017

Hon James Shaw  
Minister for Climate Change and Associate Minister of Finance and Statistics  
Parliament Buildings  
WELLINGTON

**By email:** [j.shaw@ministers.govt.nz](mailto:j.shaw@ministers.govt.nz)

Tena koe Minister Shaw

Congratulations on your new roles as Minister of Climate Change and Associate Minister of Finance and Statistics.

We are New Zealand's professional body for engineers, with more than 20,000 members - and New Zealand's strongest and most influential voice on engineering issues.

This letter tells you who we are and what we do, and introduces some of the key engineering-related issues we see facing Aotearoa New Zealand.

We are very keen to work with you, particularly on climate change and clean energy. A Net Zero Carbon Economy by 2050 is a challenge that demands engineering solutions.

## **WE HAVE A NEW NAME: ENGINEERING NEW ZEALAND**

You might remember us as IPENZ. On 1 October 2017, we changed our name to Engineering New Zealand. Our new name explains much more clearly who we are and what we stand for (the name "Institution of Professional Engineers New Zealand" remains our legal name).

We have undertaken a significant programme of transformation in the past two years. Our new name reflects our change in strategic direction, which is based on extensive feedback from our members. They want us to deliver greater credibility, recognition, influence and connection. It's our job to bring engineering to life.

## **OUR NEW MEMBERSHIP PATHWAY CATERS FOR MORE ENGINEERS**

On 1 October, we also launched a new Membership Pathway. This Pathway creates a professional home for engineers from all disciplines at all stages of their careers. It creates a place for senior managers, engineering geologists, academics, technicians and technologists, as well as engineering professionals from rapidly growing fields like robotics and software engineering.

The new Pathway strengthens members' credibility by requiring them to commit every year to our Code of Ethical Conduct and to carry out on-going professional development. It also provides a framework to guide the development of young engineers in the first years of their career.

## **WE'RE SPEAKING UP FOR ENGINEERING PROFESSIONALS**

### **Making expert voices heard**

We have developed a list of experts from our technical groups who can provide media comment. Our technical experts are always available to answer any technical question you might need advice on.

### **Taking a stand on engineering issues that matter to New Zealanders**

We've asked our members what they see as the key issues facing New Zealand that an engineering perspective is important on. We're now working with a range of stakeholders to develop a report framing these issues, recommending how they can be addressed from an engineering perspective. This will be a high impact, accessible piece of thought leadership, focused on issues including climate change, water, and seismic resilience. We'll keep you updated and are interested in your thoughts as to where we can best focus our collective efforts.

## **WE WANT TO WORK WITH YOU ON THE GREATEST CHALLENGE FACING THE WORLD**

You will recognise the words of the Prime Minister in describing climate change. In our view, the disruptive impact of climate change is already upon us and engineers are stepping up to meet the challenge.

### **Net Zero Carbon Economy**

The change that is required goes beyond setting ambitious targets, important though that work is. Our engineers will lead the design and implementation of the innovative solutions required to make New Zealand a global leader in clean, green tech. Engineers are integral in the transformation to 100% renewable electricity by 2035, resilient cities, smart transport and sustainable agriculture.

### **Green Investment Fund**

Again, engineers can play an important part in assessing the viability and effectiveness of low-carbon innovation. We are concerned that there may be a tendency to adopt solutions that appear to make a difference but may not future-proof our energy sector. Engineers are experienced in thinking through the practical application of new technology.

### **Climate Change Commission**

We urge you to ensure that engineers will be strongly represented on the proposed new Climate Change Commission. Our members are not only working on the solutions to reduce carbon and other pollutants. Engineers are at the front line of dealing with the impacts climate change, including more severe and frequent storms and droughts, and sea-level rise. This places vital infrastructure at greater risk of failure and communities at risk of inundation. Resilient infrastructure networks and buildings as well as effective flood-defence require effective engineering solutions.

We were pleased that two of our members were appointed to the Climate Change Adaptation Working Group. Our view is that engineers need to be represented across a range of technical specialities on the Commission if it is to lead enduring climate change mitigation and adaptation.

## **WE'RE WORKING TO CHANGE THE FACE OF ENGINEERING**

With the current shortage of engineers, it's crucial to grow our pipeline. It's also crucial that engineers better represent and reflect the diverse New Zealand that they serve.

### **The Diversity [A]gender**

We have joined forces with the New Zealand Institute of Architects and the Association of Consulting Engineers to create a programme called The Diversity [A]gender, which we will launch next year. It includes a target, a code, resources and a public campaign. We are currently recruiting champions and will be writing to Minister Julie Anne Genter to discuss the opportunity for her to be involved.

### **Attracting children and young people**

We coordinate the interactive industry initiative "Week of Engineering", which this year saw more than 5000 people through our one-day public expos in Wellington, Auckland and Christchurch, and more than 700 students visiting engineering firms.

Our Futureintech programme, which we are currently overhauling, connects young professionals as STEM Ambassadors with schools. Futureintech is funded by Callaghan Innovation and seeks to inspire young New Zealanders to explore careers in science, technology and engineering. We also reward talent through our Student Innovator of the Year and Young Engineer of the Year awards.

## **WE LOOK FORWARD TO MEETING YOU**

Thank you for this opportunity to outline our work. We would very much like to meet in person to discuss how to tackle the challenge of climate change and anything else that would be helpful, including how we can best support you in your roles.

Na māua noa, na



Craig Price  
President



Susan Freeman-Greene  
Chief Executive