

Energy Education – a Job for Geoscientists

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Adequate, affordable and available energy lies at the centre of modern human existence. Energy for food, shelter, warmth and transportation enables long, healthy and productive lives. Yet many in our society have lost sight of this fundamental truth, caught up in a blinkered focus on greenhouse gas emissions and climate change. As a result, people and industries in many high-income nations are experiencing energy shortages, or are paying so much for adequate energy that they can't properly heat their homes or put food on their tables.

The world is not short of energy. Oil, gas and coal supply more than 80% of the energy we use today, hydroelectricity and nuclear fission are proven contributors, and alternative energy sources such as wind, solar, geothermal and some forms of biomass contribute more each year. But those driven by the "climate crisis" narrative want to govern humanity's future according to estimates of GHG emissions, without consideration of energy security – and people are suffering because of that misconception.

Everyone should appreciate the central role energy plays in their lives. In fact, most people in lower-income nations do understand this, because they spend much of their time securing basic energy, food and shelter without the support of adequate fuels or electricity. But many in rich nations have grown up with electricity at the flip of a switch, natural gas in a furnace that cycles on when the temperature drops, and gasoline always in their vehicles. They take energy for granted because they've never known anything different.

Humanity is desperately in need of sound, fundamental education around energy – and geoscientists should be leading the way. Why? Lots of reasons – for example:

- We are professional scientists. We understand the fundamentals of climate, we understand scientific evidence, we understand models, and we understand the critical role that assumptions and uncertainty play in scientific interpretation;
- We understand energy resources. We know what it takes to explore for, appraise and develop resources ranging from oil and gas to the growing list of metals and minerals critical to changing energy systems – lithium, copper, cobalt, helium and others;
- We understand economics. We know that investors need a clear line of sight to profit to invest in new ideas and projects, and that line of sight must include regulatory certainty and reasonably assured markets and pricing;
- We know what it takes to get things done. Along with our friends the engineers, we understand the multi-year time frames between concept and execution, whether in resource discovery and development or facility / infrastructure construction. We know that we can't "transition" energy sources overnight.

Geoscientists are not unique in our scope of learning and experience. But there are many, many more people lacking our perspectives peddling other causes such as “climate crisis” as supremely important, without understanding the damage they are doing out of energy ignorance.

Geoscientist must bring our knowledge and experience to the table to educate our friends and neighbours, and ultimately societal decision-makers, about the critical importance of adequate, affordable and available energy for each and every person on earth.