



## **Is Australia ready for Nuclear Energy?**

**Michael Angwin**  
**Chief Executive Officer**

GPO Box 1649, Melbourne, 3001

T: +61 3 8616 0440 F: +61 3 8616 0441 W: [www.auran.org.au](http://www.auran.org.au)

ABN: 30 005 503 828

# Indications of readiness

-  **Technology**
-  **Skills**
-  **Capital**
-  **Regulatory framework**
-  **Public and opinion-leader opinion**
-  **Politics**



# Technology



**Available**



**Mature**



**Doable**



# Skills

**Significant investment across the board**



# Capital



## Risk

- Stakeholder
- Regulatory
- Very long lead times
- FOAK



**Taxpayer support almost certainly needed**



**Loan guarantees**



**Carbon pricing**



**Global nuclear subsidies low on an output basis**



# Subsidising electricity generation

(Source: Prof Manfred Lenzen, University of Sydney, *Current state of electricity generating technologies – a literature review*)

Technology	Subsidy (c/kWh.y)
Hydro	0.013
Nuclear	0.72-1.5
Geothermal	1.5
Wind	2.1-2.4
Biomass	2.6-5.9
Solar PV	26
Concentrated solar	30.5



# Regulatory framework

- ☾ Nuclear currently prohibited
- ☾ Need a complete regulatory framework
- ☾ 3 to 5 years



# Opinion

- ☾ **Growing comfort with uranium**
- ☾ **Long term trend: just over majority support**
- ☾ **Recent trend: decline in opposition, increase in 'making up my mind'**
- ☾ **In my State: 40%**
- ☾ **Within 100kms of me: 25%**
- ☾ **Salience?**
- ☾ **Opinion leaders: more supportive than the public?**



# Politics

- ⌋ **Negative (ALP) or ambivalent (Liberals) policy positions**
- ⌋ **Policy opportunities foregone (energy white paper)**
- ⌋ **Positive framing for renewables**
- ⌋ **ALP veto**
- ⌋ **The Greens?**



# A pathway to nuclear energy: 10 years

 **Switkowski II/Productivity Commission (6 months)**

 **Nuclear energy commission**

- **Regulatory framework (3 to 5 years)**
- **Site identification and consultation (5 years minimum)**
- **Waste site identification and consultation (30 years)**
- **Skill development (5 to 7 years)**

 **A business proposal**

- **Financing (3 years?)**
- **Site identification and consultation (5 years minimum)**
- **Regulatory approval and permitting (7 years)**

 **Construction (3 to 5 years)**

**Can clean coal and renewables supply  
all the electricity we need?**





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