





The Australian Energy White Paper: Some energy markets perspectives

lain MacGill

Associate Professor, School of Electrical Engineering and Telecommunications Joint Director (Engineering), CEEM ANU Energy White Paper Forum

ANU Energy Change Institute 28 April 2015



Back to the future

"Many of us who keenly observe the energy sector can take a pretty good guess at what our next big challenges are" Senator MacFarlane, 10/9/2014



- However, 2004 White paper had almost no discussion of:
 - CSG (CSM)
 - East Coast LNG export
 - Falling demand
 - Falling costs and growing of Wind, PV

A NATIONAL STRATEGY TO DELIVER PROSPERITY, SECURITY AND SUSTAINABILITY

ive

ıq

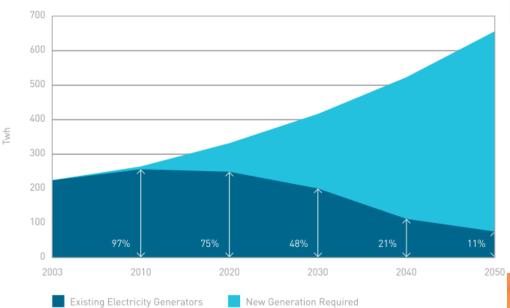
SECURING AUSTRALIA'S

ENERGY FUTURE

To achieve energy prosperity, security and sustainability, the government has put in place policies to:

- ⇒ attract investment in the efficient discover for the benefit of all Australians
- → deliver a prosperous economy while protect role in global efforts to reduce greenhouse
- → encourage development of cleaner, more ∉ Australia's energy future
- → develop effective and efficient energy mark energy, where and when it is needed into t
- $\rightarrow~$ minimise disruptions to energy supplies a disruptions occur
- $\rightarrow~$ establish an efficient energy tax base, rest resource rent taxes to offshore projects
- → ensure Australia uses its energy wisely.

Figure 3: Demand/Supply balance for electricity—Medium electricity demand scenario

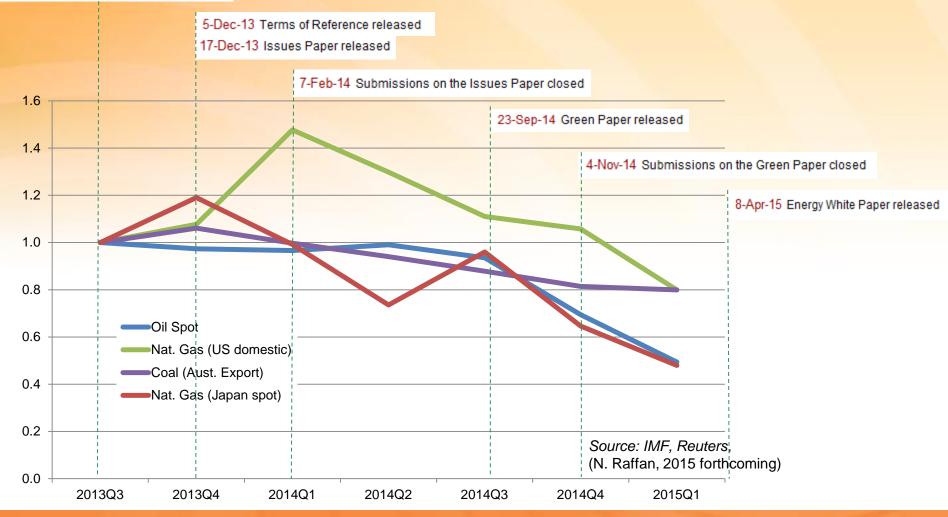






A future that is getting harder to predict...

18-Sep-13 Coalition Government sworn in







... but still requires challenging, forward lookingdecisionsUncertainty is an uncomfortable position. But certainty is an absurd one.

- Voltaire

- Energy investment typically large, lumpy, irreversible, long lead times & asset lives; requiring high levels of coordination
- Someone has to take these decisions
 - Who?; information, knowledge, resourcing, autonomy
 - How?; process that invariably includes planning
 - Within what context?; broader societal objectives as reflected in policy and regulation
 - With what level of integration with other decisions? Coherent, comprehensive and integrated decision making required
 - With what accountability for success or failure?; *Risk management and allocation*





White paper framework – competitive markets

"Investment decisions on future generation assets, including choice of technology, are best made by industry, given its insights into market needs. The Australian Government will seek to maintain **stable** and predictable policy settings across the range of areas that affect such investment decisions, while taking a technologyneutral approach."

- Is this compatible with
 - the scale and speed of change required to address our national and international energy challenges?
 - decisions regarding the economically regulated monopoly infrastructure within which such investment resides?
 - effective risk management and allocation? Investor certainty in an uncertain world doesn't manage risk but just reallocates it onto public
 - the market inefficiency associated with unpriced environmental and social market 'externalities'



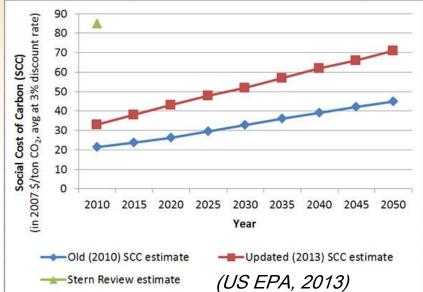


The question is not whether to have a price on carbon?

Costs associated with reducing emissions regardless of particular means chosen (tax, emissions trading regulation, ERF...)

And / or

 Social costs associated with impacts of failing to effectively manage climate change (SCC)



Instead, real question is who, pays how much, to whom, for what, when?





Welcome focus on consumers

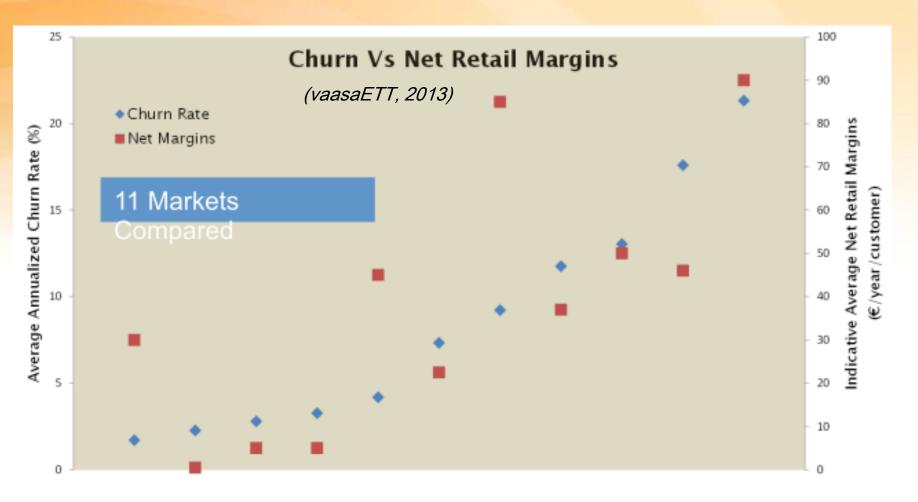
"...development of market frameworks to encourage innovative products & services that give consumers more choice in managing bills & support greater competition" "Regulation should generally encourage competition & consumer choice, not stifle it"

- Incumbents will generally prefer less competition
 - engaged customers with real options key to true competition
- However
 - Limits to the interest, motivation, knowledge and capabilities of some; requires protection and facilitation to support engagement
 - Not always being offered meaningful choices; they want services, not an energy commodity
 - Inadequate measures of competition; does 'churn' and market offer 'spreads' reflect competition or the absence of it? 1.4 million households have engaged through residential PV that reflects real competition beyond choosing a retailer
 - Shared choices important too; including question of renewable energy policy, further electricity industry privatisation





More competition?



Australia a residential PV energy 'super-power'

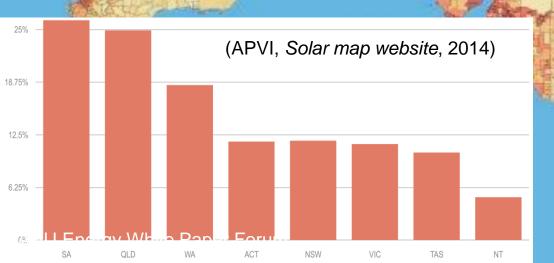
NT

Australia

S.A.

Coral Sea

131anus



W.A.

Perth •

Sydney

Qld

NISIW

Melbourne

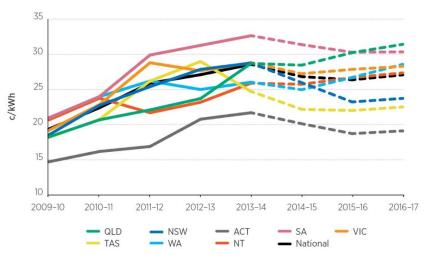
0% 1% 2.5% 5% 10% 15% 20% 25% 30%+





A compelling case for privatisation? *"The evidence is that privately owned energy assets are more productive"* If true, do customers care?

Figure 2: Trends in retail electricity prices by jurisdiction, 2008–09 to 2013–14 and forecasts to 2016–17



 Focus on gas market competition welcome but challenges there reflect, at least in part, the restrictions that largely private ownership placed on earlier reform efforts





Welcome focus on productivity

- ... but requires greater coherence with market reform
 - "Artificially low domestic prices do not encourage gas users to use gas more efficiently or encourage innovation in the use of alternative fuels and processes."

True, but doesn't the same apply to electricity?

- as well as clearer definition
 - Is it the economic value derived through energy use compared against energy costs, or energy consumption?





Possible improvements to White Paper process

- As it stands, largely a 'to do' list of government priorities over near future
- In terms of vision and long term planning falls well short
- Opportunities to focus more on planning rather than the plan

In preparing for battle I have always found that plans are useless, but planning is indispensable.

OuoteHD.com

- Detach from political cycle (currently one White paper per government)
- Broader, and ongoing stakeholder engagement
- More scenarios and robustness testing of these
- Leverage ICT to support an ongoing dialogue as new inputs emerge (eg. NESA), circumstances change, policies are implemented...