

Tariff Reform and PV - international collaboration?

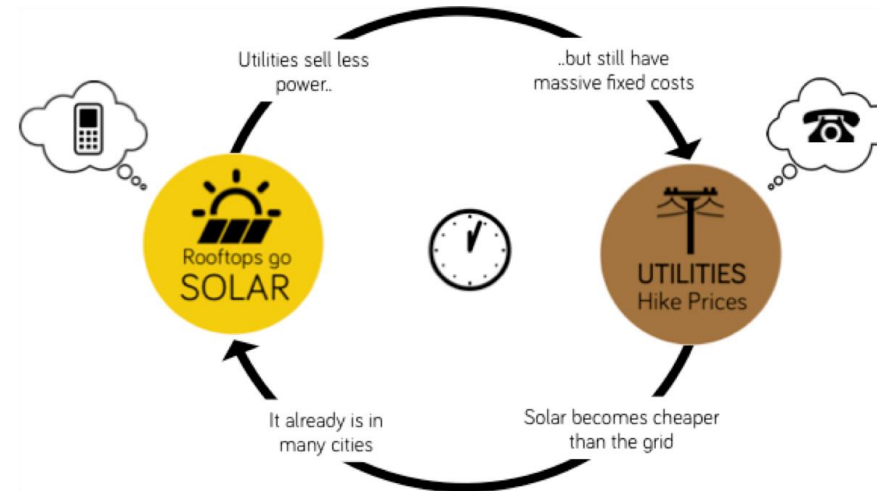
Australian PV 2015

Presentation to IEA-PVPS Task 1

April 2015, Golden

Key issue: Utility Death Spiral

- ▶ As Distributed-PV share of energy mix increases, volume of power transmitted/distributed by networks decrease, without an equivalent reduction in peak demand
- ▶ Networks fixed costs spread across less energy → for cost recovery, network tariffs increase... c/kWh increases
- ▶ This makes solar more favourable... reducing network energy flow, raising prices, etc etc
- ▶ One Australian distributor recently changed pricing structure for large commercial premises to \$at least 36k/year just for connection



Typical tariff structure

- ▶ Fixed charges
 - ▶ Energy charges
 - ▶ Flat Rate
 - ▶ Time of Use
 - ▶ Block Tariff
 - ▶ Demand charges

 - ▶ In the USA - EPRI concluded fixed cost is \$51 of \$110/month, but fixed price is \$8/month
 - ▶ Seems to be a common practice in Australia, UK
- ▶ Policy objectives:
 - ▶ Efficiency
 - ▶ Cost reflective tariffs
 - ▶ Long Run Marginal Cost
 - ▶ (environment???) / Externalities?
 - ▶ Fairness / Equity / Protect the poor
 - ▶ Stability - Revenue/Bill
 - ▶ Customer satisfaction
 - ▶ Pricing models
 - ▶ Postage stamp

Options

- ▶ Postage Stamp or regional pricing
- ▶ Capacity charges or demand charges (metering implication)
- ▶ Fixed price / TOU / Block tariff
- ▶ How do policymakers achieve conflicting objectives?
- ▶ How can the PV industry provide input
 - ▶ Self-serving & idealistic hold-out (requires strong lobbying and may only last so long)
 - ▶ Take whatever is offered
 - ▶ Well-researched

International Collaboration

- ▶ This is a 'live' debate in Australia, that will only get louder
- ▶ the utility death spiral occurs everywhere, eventually...
- ▶ What can we learn from each other?
 - ▶ There are many different approaches taken regionally that reflect historic/cultural/policy parameters
 - ▶ This offers a great range of possible fresh solutions in each country
 - ▶ This information can help each country achieve objectives that are fair to PV
- ▶ What role can/should the PVPS play?

<http://www.ksg.harvard.edu/hepg/Papers/2014/Brattle%20report%20on%20structure%20of%20DNSP%20tariffs%20and%20residual%20cost.pdf>