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ENERGY INSTITUTE

*Parliament of  
Victoria*

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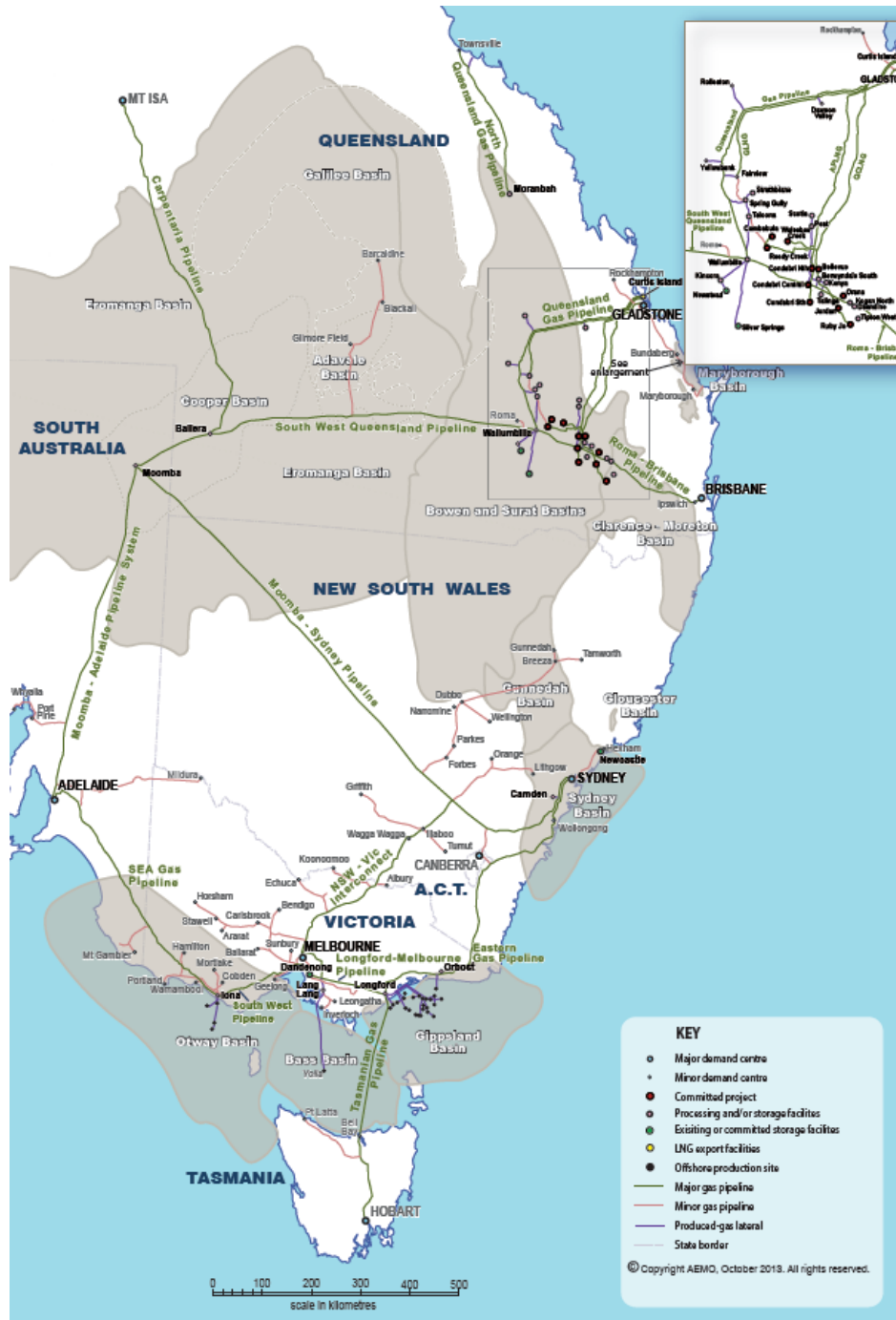
*Inquiry into  
Unconventional Gas in  
Victoria*

*22 July 2015 – Tim Forcey*



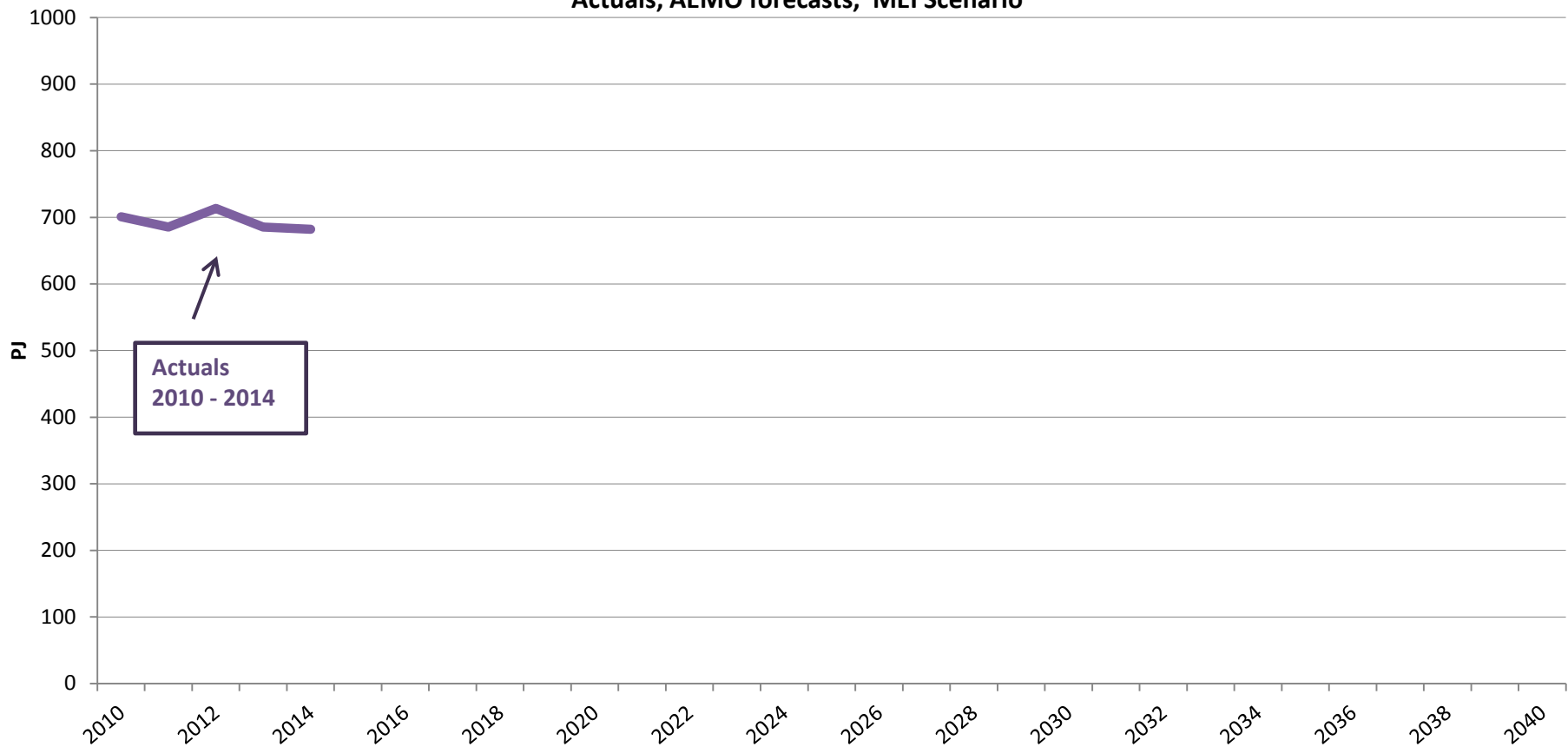
## 10 points:

- 1) Gas used in eastern Australia **peaked in 2012**. (Excludes gas exports - LNG.)
- 2) **Gas demand is declining** and will continue to decline across all sectors in eastern Australia.
  - electricity generation
  - industry / manufacturing
  - buildings (homes and commercial)
- 3) In forecasts, AEMO has not yet factored in gas-to-electric **fuel-switching** in homes & businesses.
- 4) Some people can save hundreds of dollars per year by heating their homes with their electric **reverse cycle air conditioner** instead of gas.
- 5) Reverse cycle air con, hot water heat pump, and induction cooktop lead to the **“all-electric”** Victorian home.
- 6) **No economic need to connect gas** to new Australian homes and suburbs.
- 7) As consumers (economically) disconnect from the gas grid, those that remain must pay the cost.  
This leads to the **gas grid “death spiral”**.
- 8) We can **“explore for gas... savings”** in Victorian’s attics and lounge rooms, and improve home health outcomes.
- 9) As gas demand declines, remaining **gas reserves stretch out** for an additional decade.  
So a potential 2030 concern becomes a 2040 concern.
- 10) Victorians need an **Integrated Resource Plan (IRP)** that considers gas-supply AND gas-demand management.



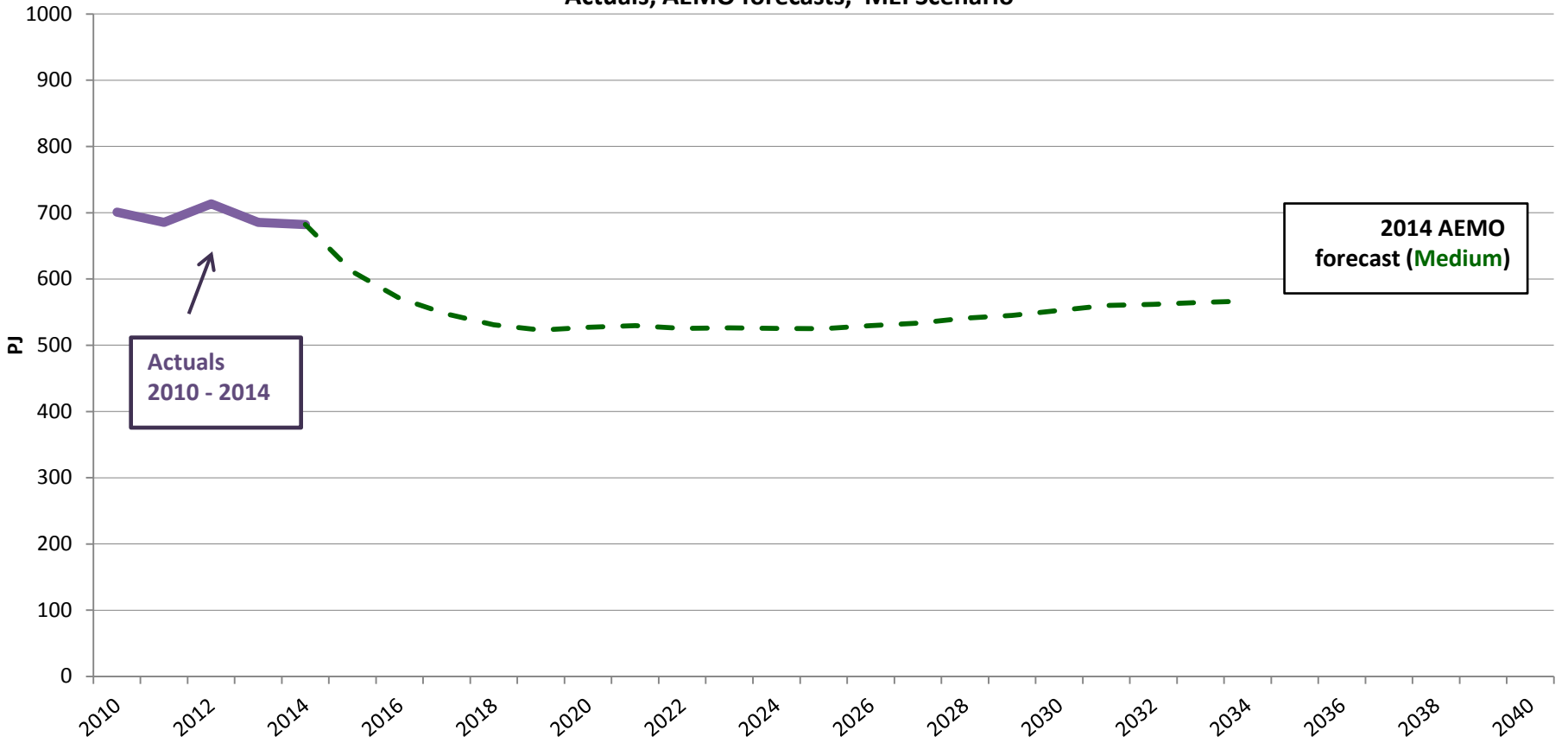
# Eastern Australia gas demand (excludes gas for QLD LNG export)

## Actuals, AEMO forecasts, MEI Scenario



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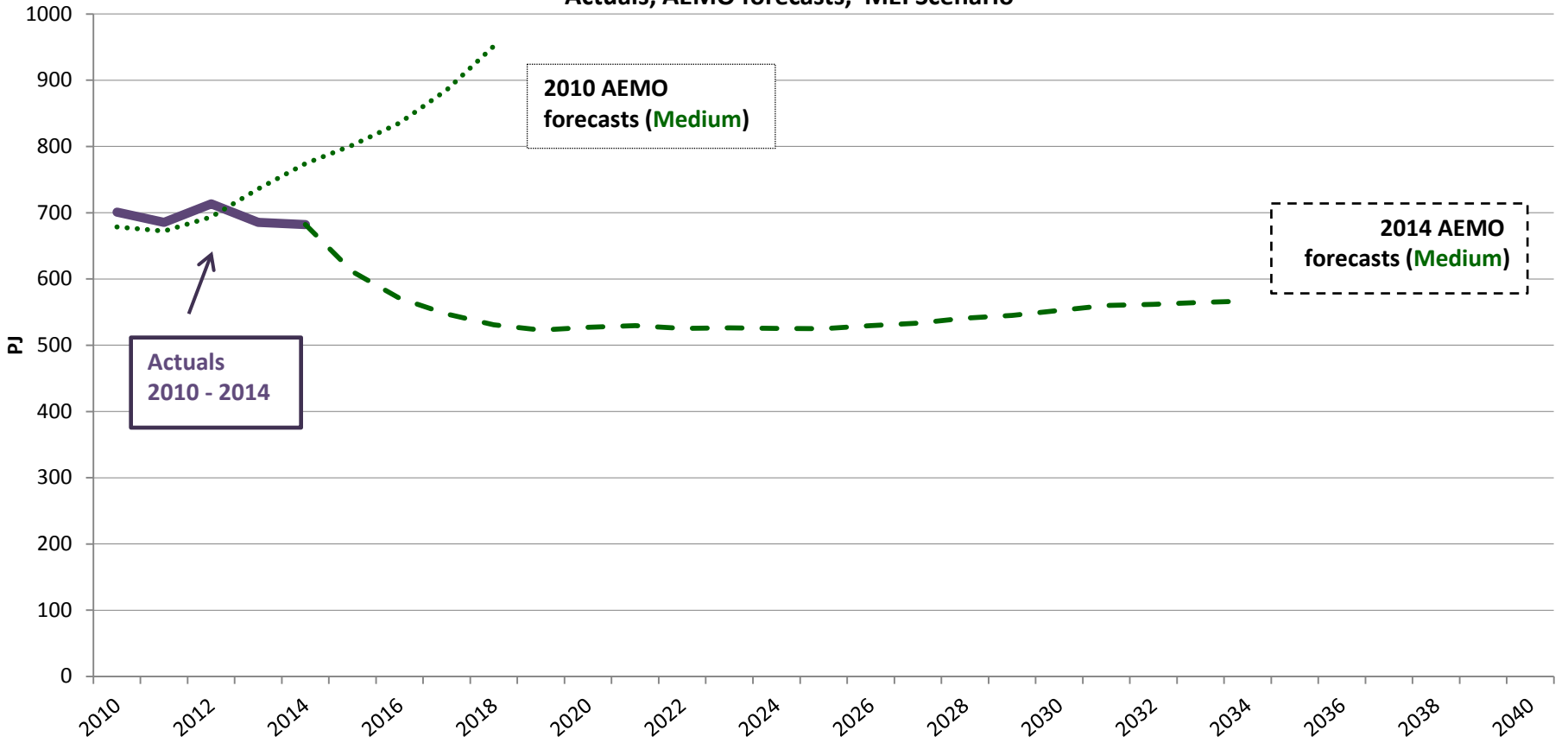


Actuals  
2010 - 2014

2014 AEMO  
forecast (Medium)

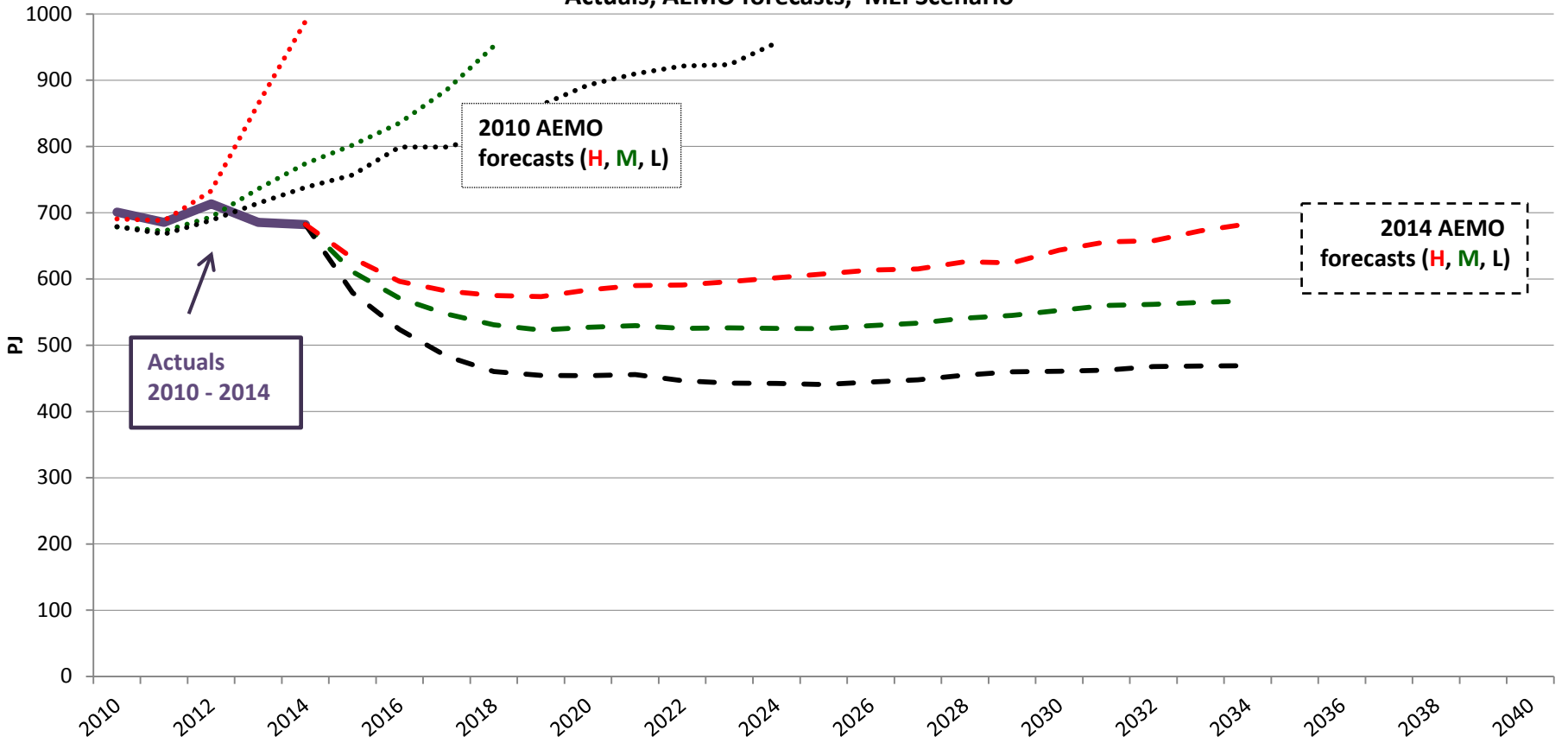
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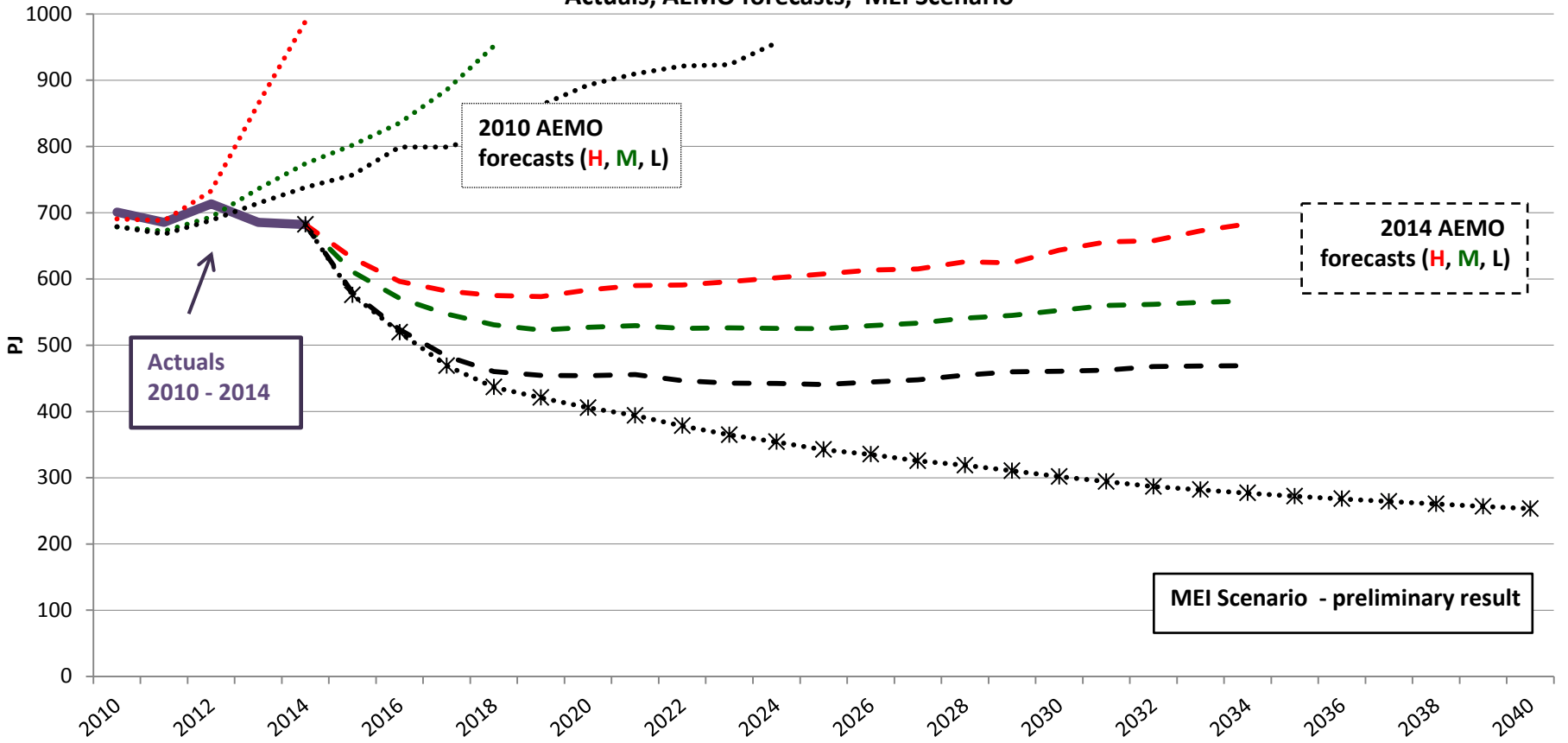
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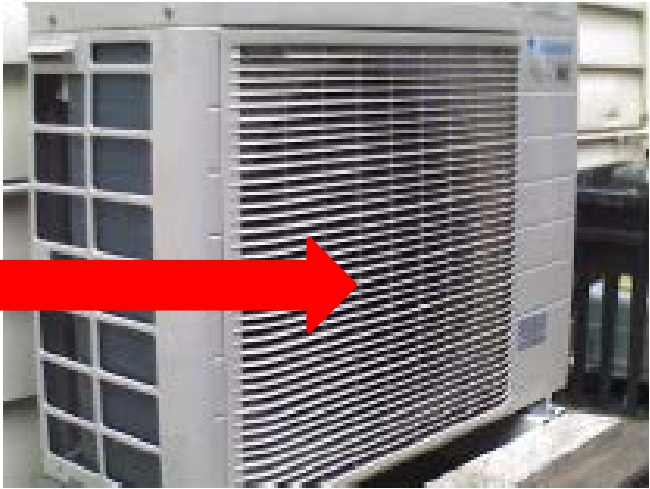
Reverse cycle air conditioner – in heating mode, producing temperatures of up to 50 deg C.



1 part of electricity produces  
6 parts of space heating.



5 parts of renewable energy  
go in here.



Heat pump hot water heater:  
1 part of electricity produces  
**4.5** parts of hot water.



Induction cooktop:  
More efficient than gas,  
and just as controllable.

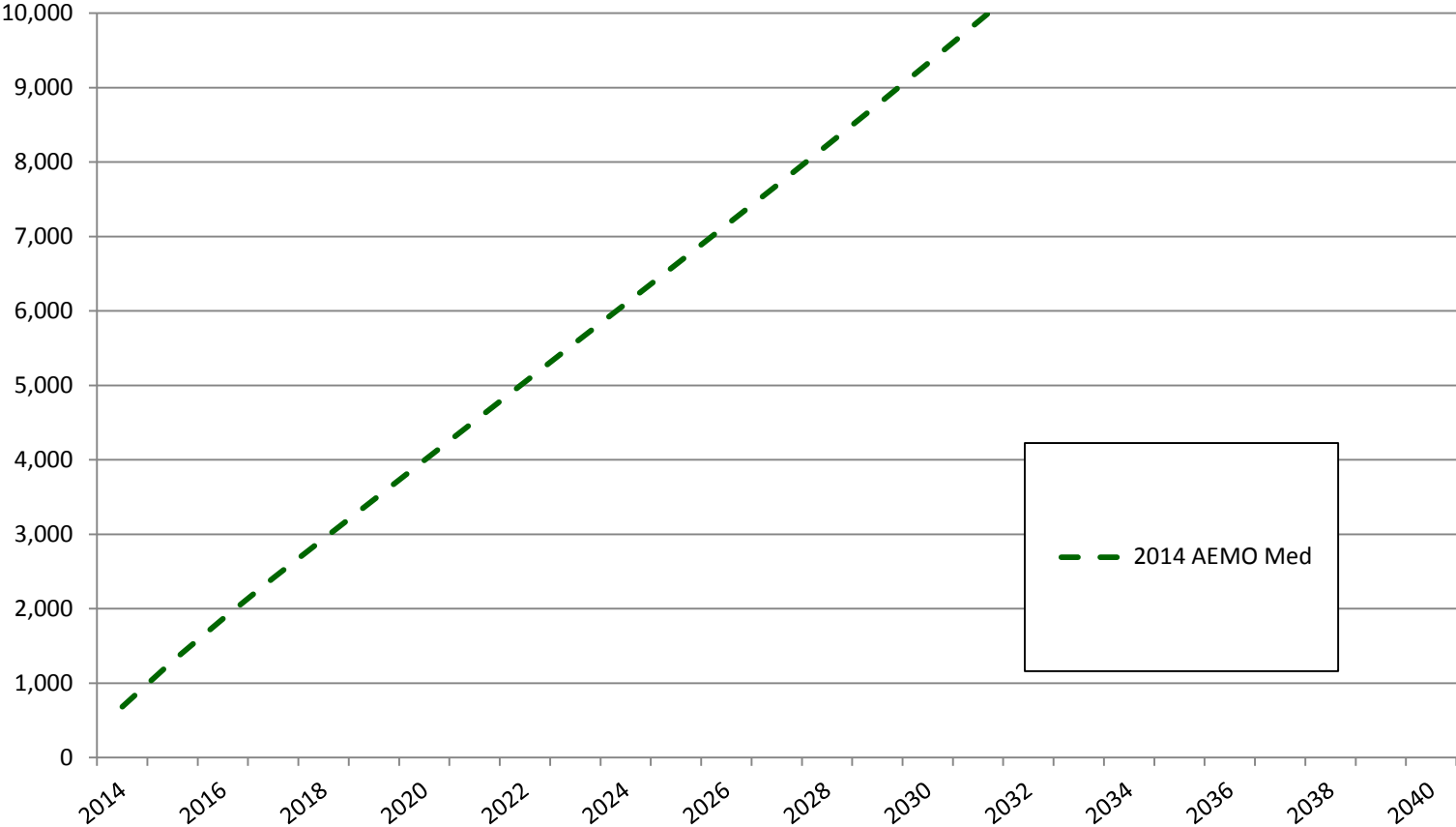


Your pot becomes the heating element.  
Minimal energy wasted.

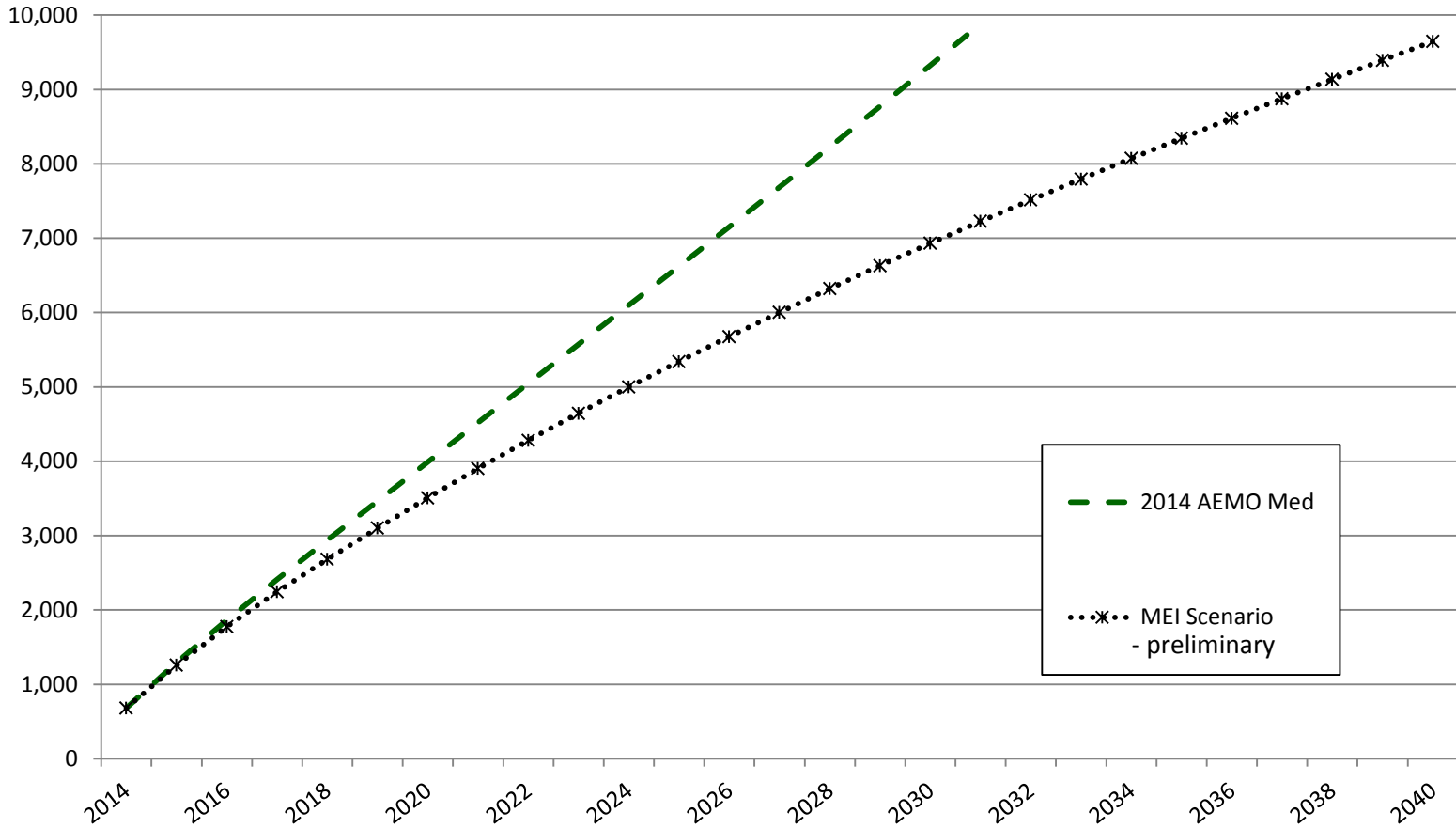
3.5 parts of renewable energy  
go in here.



# Eastern Australia cumulative gas used /reserves depletion (excludes gas for LNG export)



# Eastern Australia cumulative gas used /reserves depletion (excludes gas for LNG export)



Time for Victoria to have an Integrated Resource Plan (IRP) considering both gas supply *and* gas *demand* options.

**GAS**

**DEMAND**

**MANAGEMENT**

DISCUSSION PAPER NO. 1

July 1990

**Gas and Fuel Corporation of Victoria**

ECONOMIC POLICY AND RESEARCH DEPARTMENT