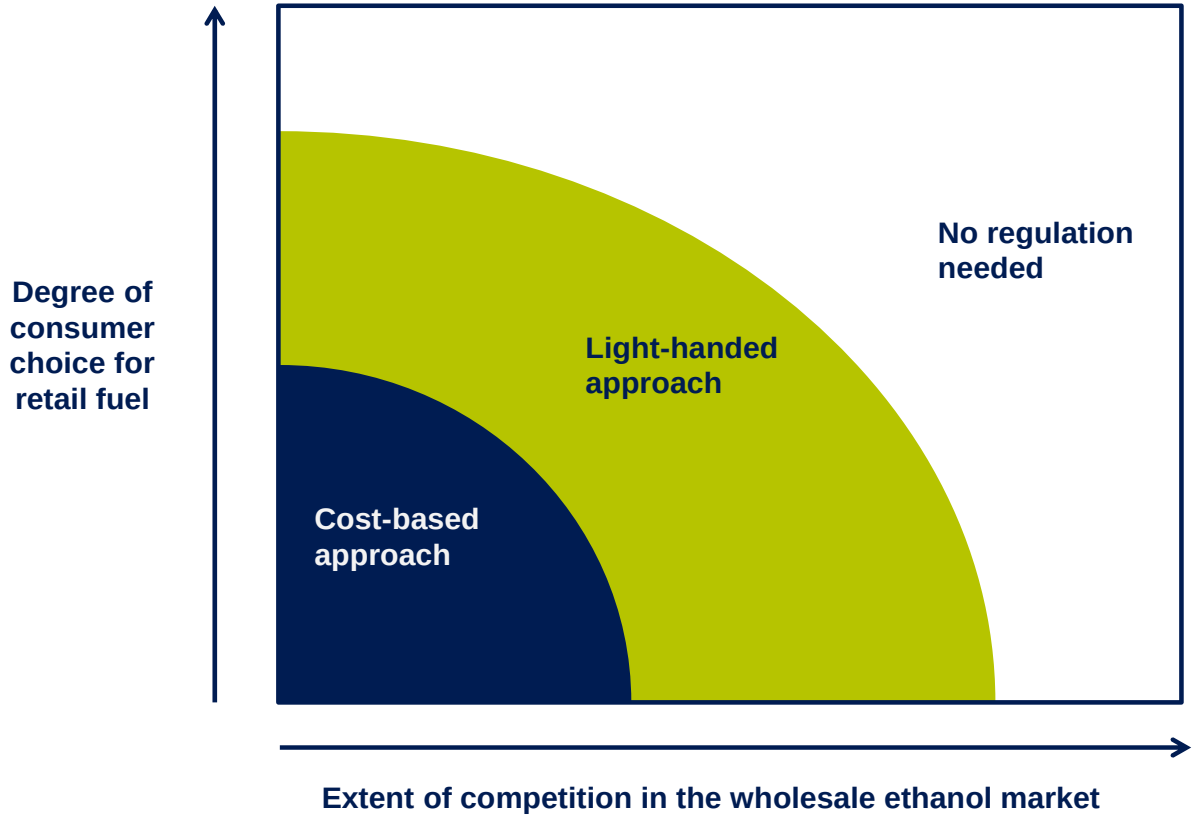
IPART
Independent Pricing and Regulatory Tribunal
New South Wales

# Review of a maximum price for wholesale ethanol

*IPART public forum*

22 November 2016

# Framework for our draft recommendations



# Light-handed approach

- Consumers have a relatively high degree of choice between regular unleaded petrol, premium unleaded petrol (PULP) and E10 at most service stations
- Emerging competition between the three ethanol producers in eastern Australia
- Relatively low oil/petroleum prices are also imposing a constraint on wholesale ethanol prices
- Under these conditions we consider a light-handed approach to recommending a maximum price is appropriate

# Import parity price (IPP) methodology

- Most suitable light-handed methodology
- Our proposed IPP methodology includes:
  - the international market price
  - transport costs
  - landing costs in Australia, including relevant excise tax
  - storage and handling costs in Australia

# IPP methodology

- This methodology would:
  - allow emerging competition in the wholesale ethanol market to continue to develop
  - support a sustainable biofuels industry
- We don’t expect that ethanol prices will rise to the level of our recommended maximum price.
- We expect the ethanol market will continue to set prices below the recommended maximum

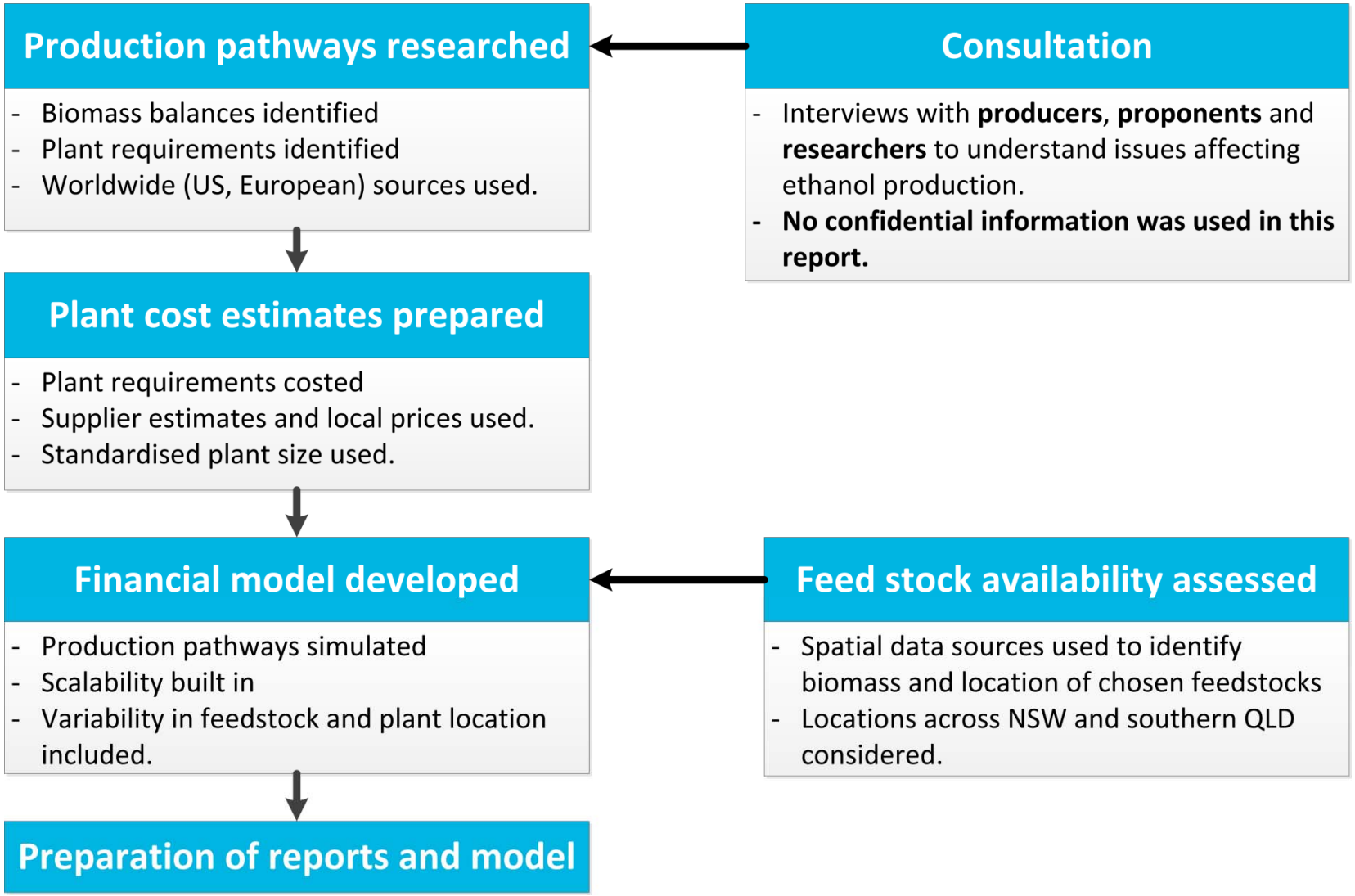
# Annual monitoring and reporting

- We've been asked to monitor and report on the retail market for E10
- We're also proposing to monitor consumer choice for retail fuel and the wholesale ethanol market
- Our assessment would consider whether a light-handed, cost-based, or no regulation approach is most appropriate
- We will consult separately on our approach.
  - Issues paper in March 2017
  - First monitoring report for 2016-17 financial year


# Efficient Costs of New Entrant Ethanol Producers Approach and Key Findings

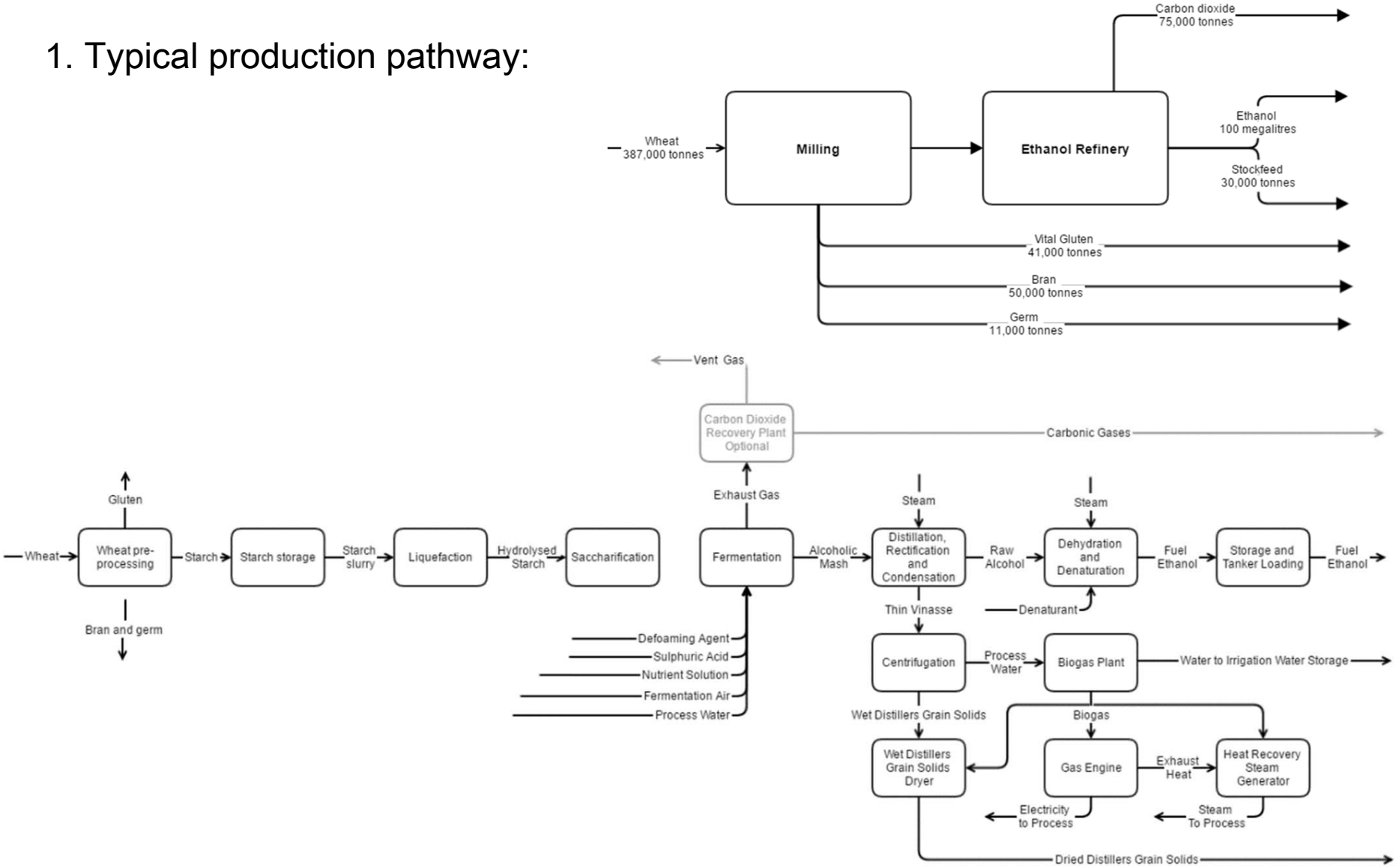
November 22, 2016

# Development of Production Cost Models



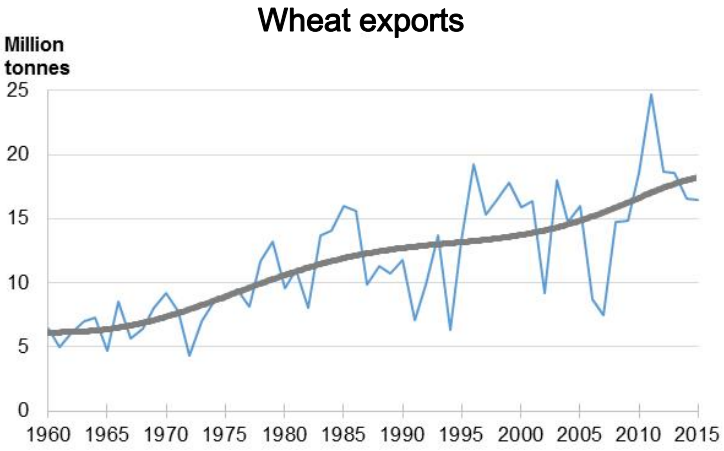
# Example: Ethanol from Grain for new entrants

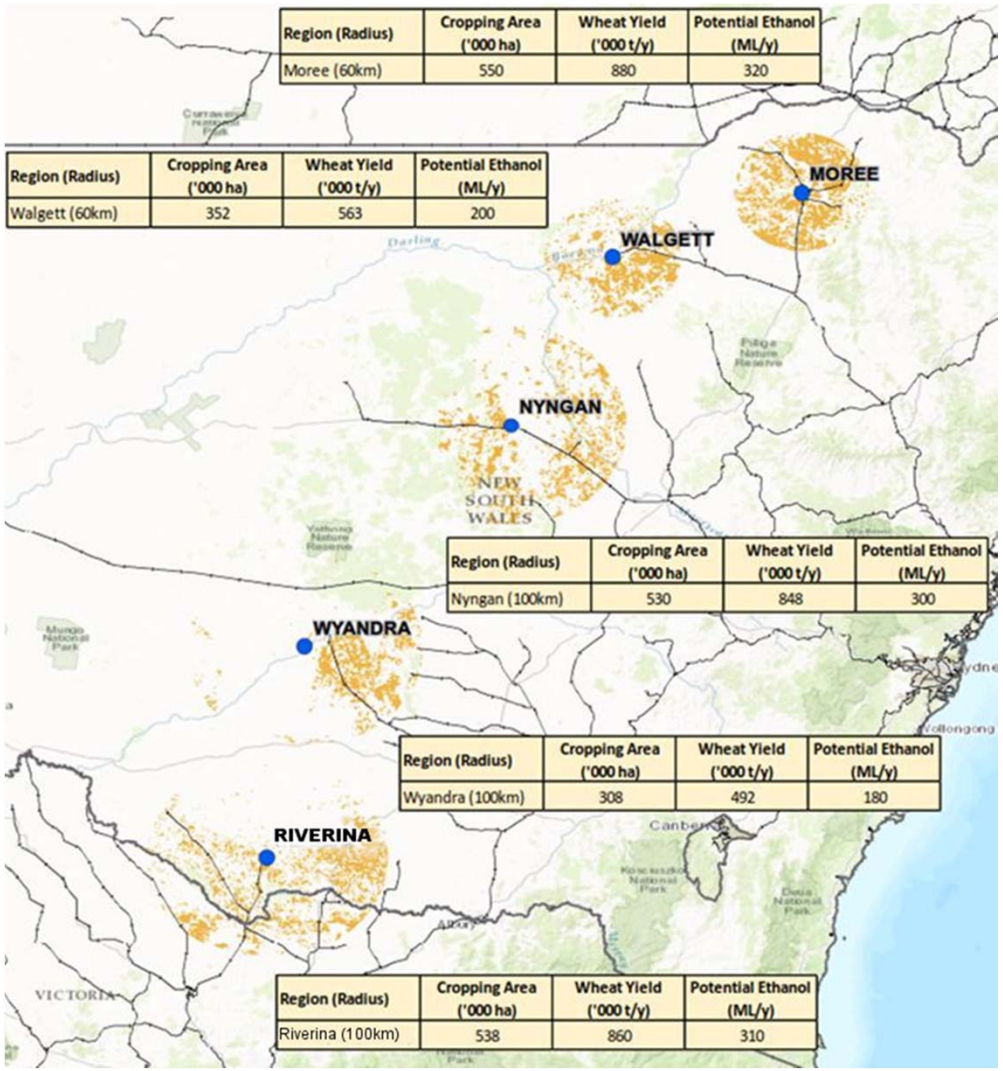
1. Typical production pathway:



# Example: Ethanol from Grain for new entrants

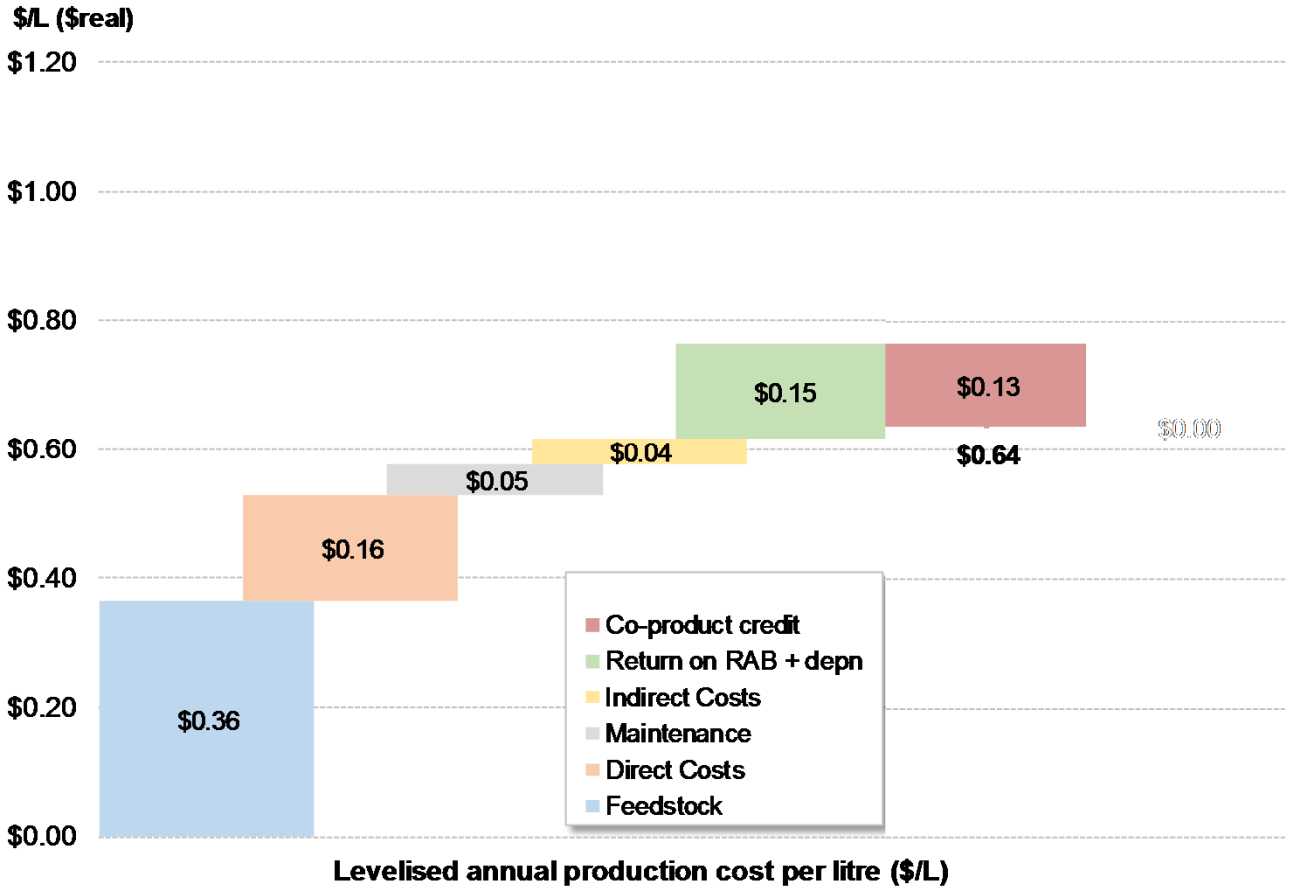
2. Estimated feedstock availability and yield:



# Example: Ethanol from Grain for New Entrants

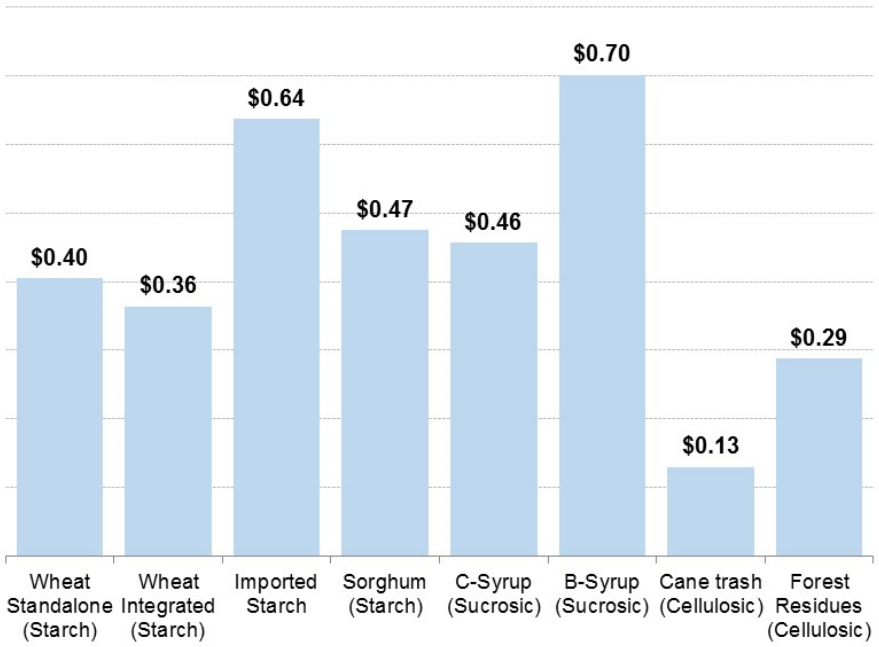
3. Estimated cost of production and delivery:



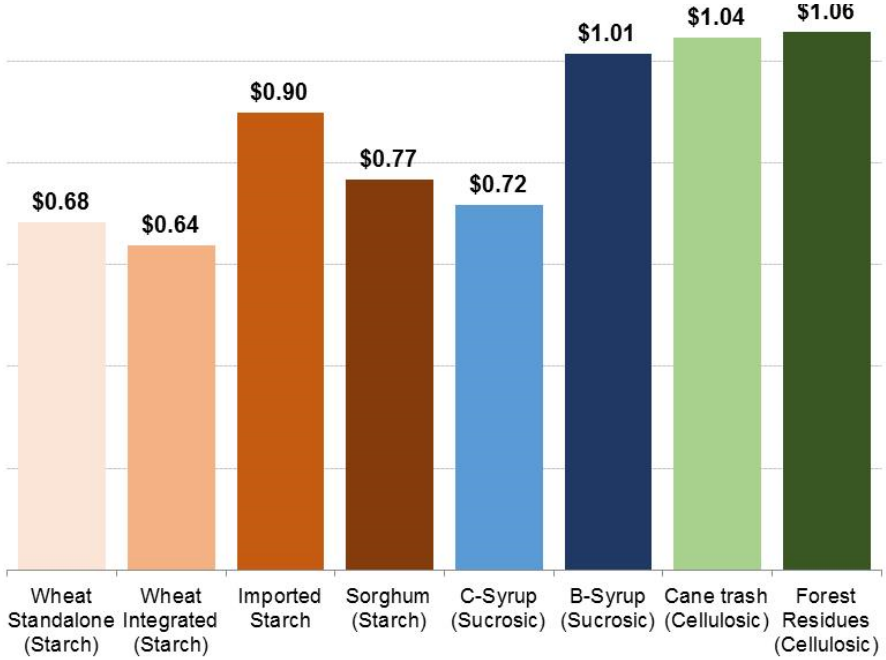
# Comparative Delivered Ethanol Costs

- The lowest cost ethanol is made from wheat (starch).
- Cane trash appears to be the cheapest feedstock available, but high capital and production costs make production from cane trash costly.

Comparative Cost of Feedstock ($/L)

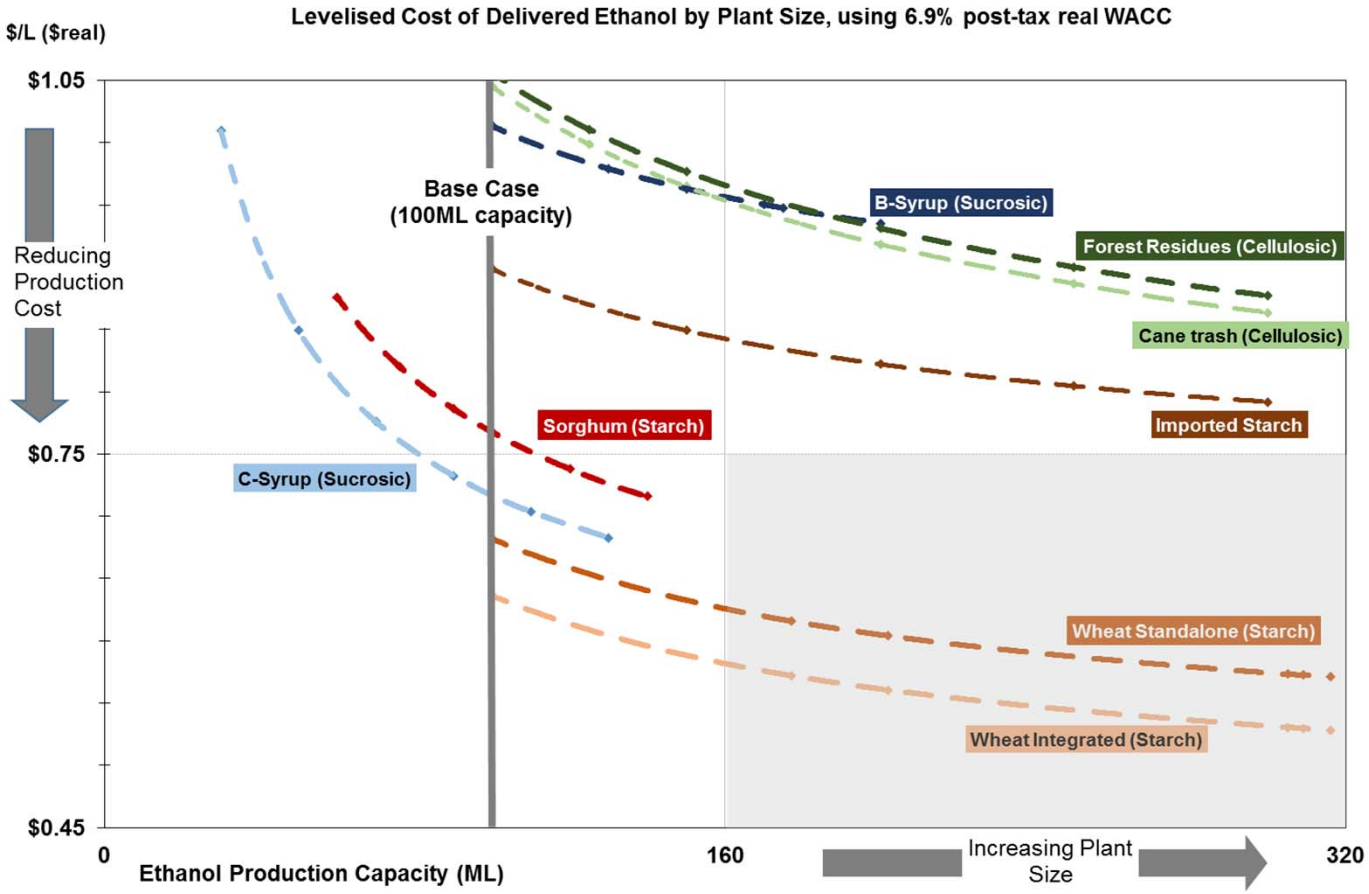



Comparative Cost of Production ($/L)



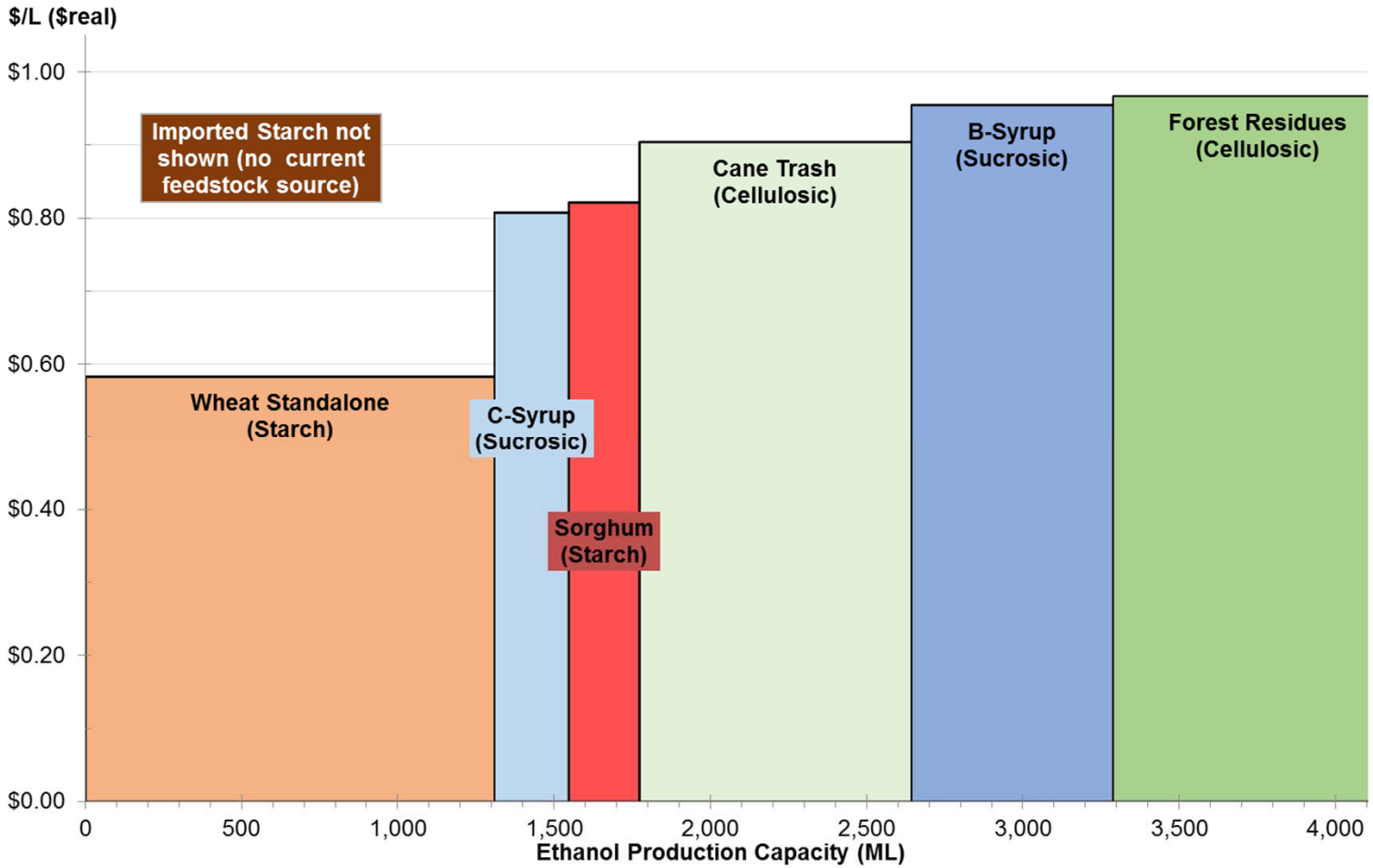
# Impact of scale on production costs

- The analysis has used a standardised plant size for comparison (100 ML pa).
- Increasing plant size provides economies of scale, reducing production costs.



# Production cost curve for Australia

The production cost using feedstock availability and production costs indicates that about 1,300 ML of ethanol could (theoretically) be produced at an average cost of $0.58 per litre.  The cost per litre goes up from there.



# Conclusions

- The capital investment involved is significant, and some form of market security is likely to be necessary to encourage investments in ethanol production.
- Proponents have noted that some form of market security would encourage the investment required.
- Security of access to feedstocks is already an issue and may become more significant if market prices for those feedstocks increase. This risk could be mitigated through long-term supply contracts, grower participation in ethanol production directly, or via co-operatives.
- Development of the biofuels sector would encourage economic development in the rural communities around each plant.
- The cost of ethanol production may reduce in the future as technology improves, and cellulosic production in particular may become more attractive. This form of production is considered a medium to long term option.

# Thank You

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# Q&A

# IPP methodology

- In the Draft Report we said we would prefer to use the lower of the US and Brazilian ethanol IPP
- We were only aware of a freely available source for Brazilian mill-gate prices, not for US prices
- Have since found a free source for US mill-gate prices (US Department of Agriculture)

# US source for mill-gate prices

- Weekly average ethanol prices from nine top producing states, including:

  ‘Eastern Corn Belt’ (incl Illinois), Iowa, Kansas, Minnesota, Wisconsin, Nebraska, South Dakota

- Propose to use an average of prices from these states
- Preliminary analysis suggest cost of US land transport and sea freight from US Gulf to Australia are similar to that of ethanol from Brazil

# IPART IPP based on US vs Brazilian ethanol prices

- Assumes similar shipping costs, but customs value duty of:
  - 0 cpl on US ethanol
  - 3 cpl on Brazilian ethanol
- For period 7 Nov to 4 December
  - Brazil IPP: 140 AU c/litre
  - US IPP: 115 AU c/litre