



Procedure Change Proposal: Maximum Reserve Capacity Price

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Agenda

- What is the MRCP?
- Background to the MRCP methodology review
- MRCP Working Group
- Proposed changes to methodology
- Indicative assessment of impact
- What happens next?

What is the MRCP?

- Price cap for Reserve Capacity Auction
- Calculated based on cost to build marginal peaking generator (160 MW diesel-fuelled OCGT)
- Seeks to provide fair compensation for new peaking generator

The MRCP is linked to:

- Reserve Capacity Price for uncontracted capacity
- Reserve Capacity Refunds

though these are being considered in the RCM review

The MRCP is not:

- An investment signal (supply/demand balance not considered)

Background to the MRCP methodology review

- MRCP calculation methodology originally in Market Rules
- Moved from Market Rules to new Market Procedure with mandated 5-yearly review – RC_2008_11 (commenced 8 July 2008)
- “... the MRCP to be determined in a cost-reflective and transparent manner so that minor changes to the methodology can be implemented without the need for Market Rule changes.”

Background to the MRCP methodology review

- IMO highlighted in 2012/13 MRCP determination (late 2009) that it would initiate the methodology review in early 2010
- ERA's 2009 Annual WEM Report to Minister for Energy recommended that IMO initiate the review
- Supported by ERA in its Decision on 2012/13 MRCP
- Review highlighted in:
 - 2 MRCP determinations (2010 & 2011)
 - 2 Statements of Opportunities (2010 & 2011)

MRCP Working Group (MRCPWG)

- MAC constituted Maximum Reserve Capacity Price Working Group in April 2010 to undertake review
- MRCPWG membership included

Troy Forward (Chair)

⇒ Allan Dawson

Corey Dykstra

Patrick Peake

Stephen MacLean

Steve Gould

Shane Cremin

Brad Huppatz

Nenad Ninkov

⇒ Adam Boyd

Pablo Campillos

Neil Gibbney

Alistair Butcher

⇒ Neil Hay

Chris Brown (Observer)

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- 10 meetings held between May 2010 and June 2011 *
- Terms of Reference required MRCPWG to develop Procedure Change Proposal(s) covering proposed amendments

Basis of MRCP

- MRCPWG agreed that current “building block” approach was appropriate
- MRCPWG agreed that the MRCP should continue to be based on 160 MW liquid-fuelled OCGT
 - Typical peaking generator with low capital cost
 - 160 MW aligned with annual intrinsic load growth (120-190 MW), recently introduced facilities in WEM
 - Western Power advice: no significant cost saving in connecting smaller unit(s)
 - Dual fuel not appropriate at this time, dual fuel incentives being separately reviewed

Key changes proposed – inlet cooling

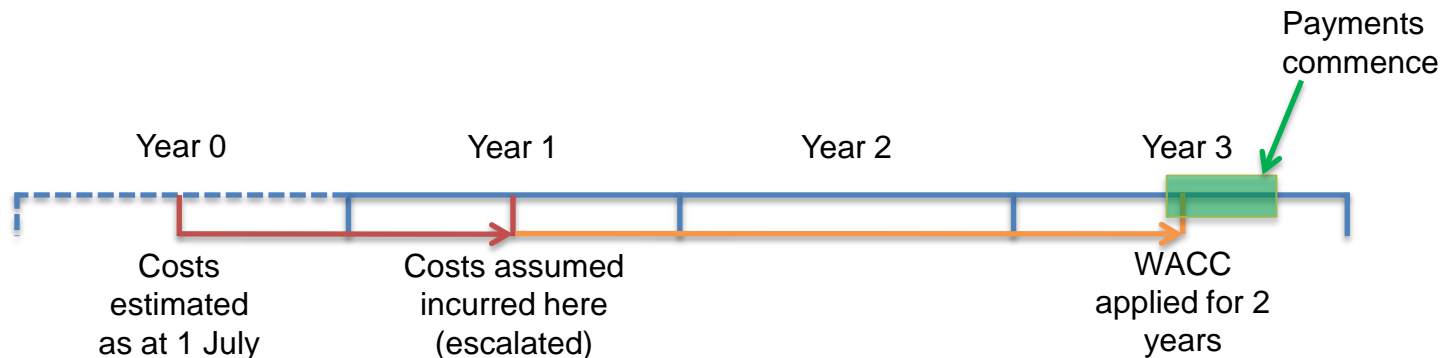
- MRCPWG agreed that a project developer building a peaking generator would install inlet cooling
 - Relatively small capital cost increase
 - Higher facility output at 41°C ⇒ higher Capacity Credit revenue
- Reflects current market practice for gas turbine facilities
 - Kemerton (Verve)
 - Alinta Wagerup
 - NewGen Neerabup
 - Kwinana Swift (Western Energy)
- Downward impact on MRCP

Key changes proposed – transmission connection costs

- MRCPWG requested advice of independent consultant
- SKM appointed to undertake review, highlighted that current method:
 - burdensome on Western Power
 - requires a range of assumptions that introduce significant inaccuracies
- SKM proposed alternative methodology, agreed by MRCPWG
 - Indicative estimate from new methodology suggests that estimates from last 2 MRCP determinations may be disconnected from connection costs paid by or quoted to project developers

Key changes proposed – application of WACC

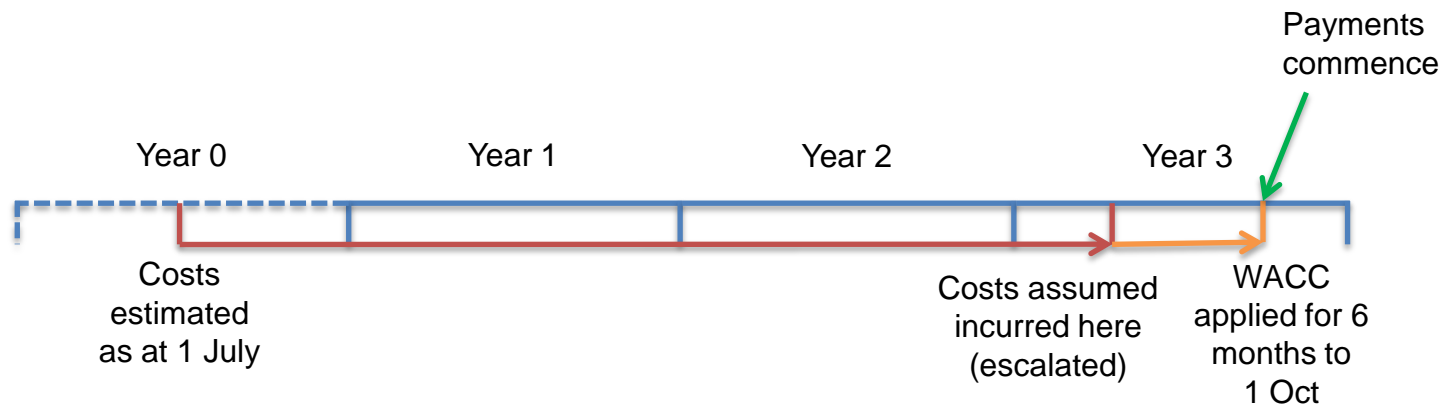
- Currently: Assumed that full cost paid 2 years in advance of commencing operations



- MRCPWG requested advice of independent consultant on WACC and its application

Key changes proposed – application of WACC

- PwC appointed to undertake review, considered that:
 - construction period for peaking generation project would be approximately 12 months
 - typical financing assumption is linear path of costs
 - for simplicity of calculation, full cost could be assumed to be paid at midpoint of 12 month period, 6 months before commencing operations
- IMO to escalate costs forward to payment date



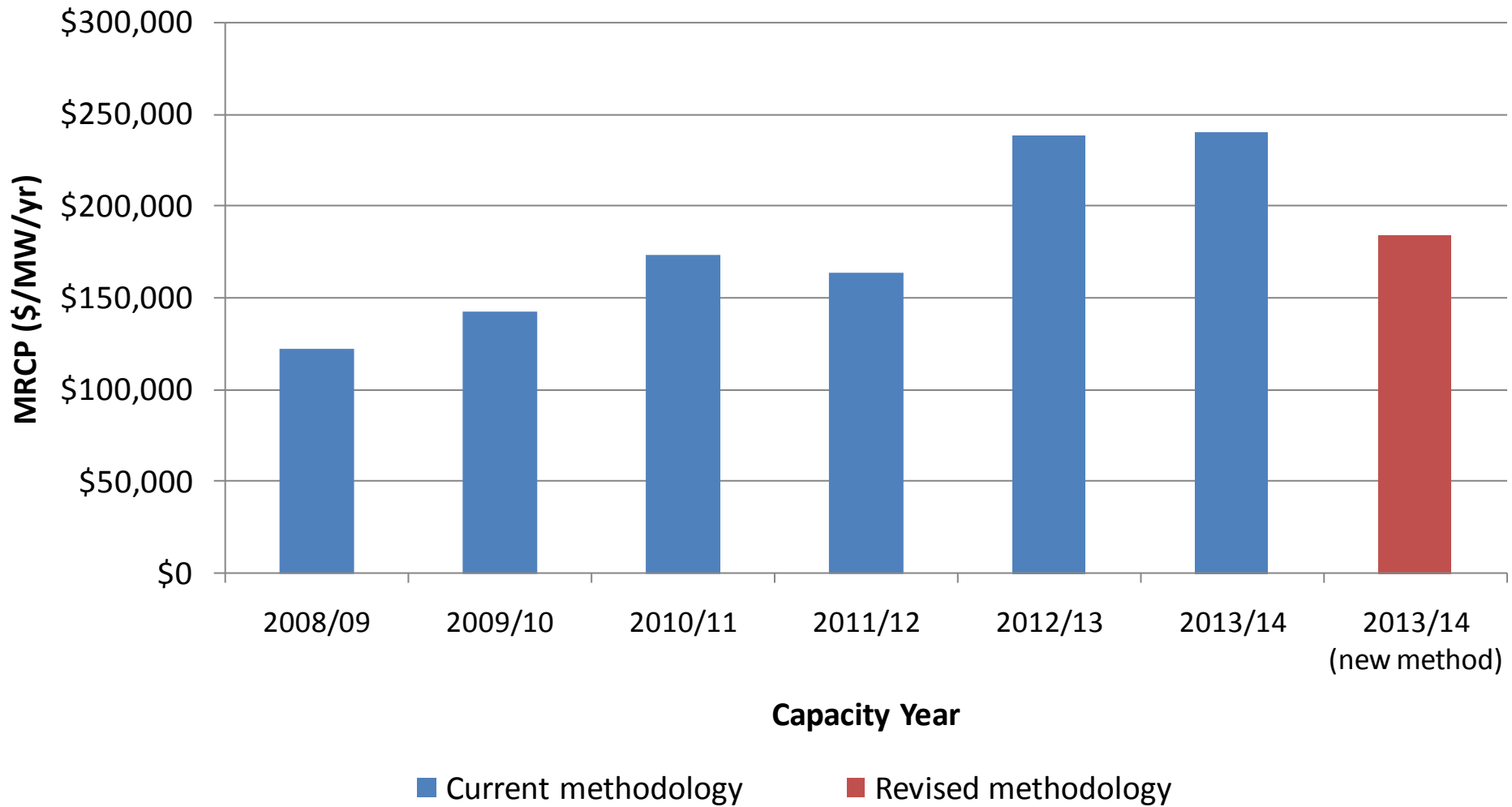
Other proposed changes

- Inclusion of annual asset replacement insurance in Fixed O&M
- Initial fuel stock increased from 12 to 14 hours
- Land parcels based on 3 ha or next smallest available size
- Average land parcel cost to be used
- Debt issuance costs to be included in WACC, corresponding debt financing costs not included in Fixed O&M
- Debt risk premium method based on accepted regulatory practice
- All proposed amendments agreed by majority of Working Group members
 - Noted objections from Brad Huppatz (Forced Outage refund allowance not included) and Stephen MacLean (retention of 15 year capitalisation period)

Indicative analysis of impact – based on 2013/14 MRCP

	Change (%)	Change (\$)	Value (\$ cumulative)
Annual MRCP Cap (current)	-	-	240,621
MRCP with Insurance costs	+1%	+2,500	243,121
MRCP with increase in fuel requirement from 12 to 14 hours	+0.3%	+620	243,741
MRCP using average land cost	+0.8%	+1,993	245,735
MRCP with inlet cooling (including water injection)	-11%	-26,846	218,888
MRCP with new Transmission Cost methodology	-10%	-24,365	194,523
MRCP with WACC applied based on 6 months return	-4%	-10,487	184,035
MRCP with all changes incorporated	-24%	-56,586	184,035

MRCP history



What happens next?

- Procedure Change Proposal circulated to MAC in August, IMO finalising response to feedback received
- Proposal to be submitted into Procedure Change Process following consideration of workshop feedback – by 6 Sept
- 4 week public consultation period, submissions close by 4 Oct
- IMO Board to consider:
 - MRCPWG review
 - Final Report and submissionsin deciding whether to approve Proposal – 2nd week October
- If approved, to be applied in Draft MRCP Report for 2014/15 Capacity Year (to be published late Oct)