COSTS £m
YEAR
Month
2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Outturn Cost ref Efficiency Review IPP
Milford Haven to Aberdulais awarded to NLJV
Milford Haven to Aberdulais renegotiated
Brecon to Tirley awarded to MPL
Felindre to Brecon awarded to NLJV
Felindre Compressor Station awarded to Amec
very wet
#13 / 05 Oct 2010 re-sanction paper and draft Nov 2010 paper added £81.1m for Tirley PRI
#16 / 04 Sep 2012 re-sanction paper £81.1m for Tirley (Corse) PRI
£1132.90m Total Cost
£37m due to additional contractor costs
£23m due to consequential costs of delays (Felindre commissioniong)
(£77.80m Tirley Scheme)
#14 / 05 Oct 2010 re-sanction paper and draft Nov 2010 paper added £22.2m for Environmental Monitoring and Aftercare
£5m additional aftercare costs
#16 / 04 Sep 2012 re-sanction paper £22.2m for Environmental Monitoring and Aftercare
(£20.70m EM and Aftercare)
#12 / 5 Oct 2010 re-sanction paper for £1030m and draft Nov 2010 paper £1031m to reflect changes to scope, time and cost. Completion date June 2012
Tirley PRI and Pipeline monitoring and Aftercare costs removed
unclear where current sanctioned cost £1001m is recorded?
£29m additional contractor costs resulting from 3 years delays
#16 / 04 Sep 2012 re-sanction paper £1034.4m spend as of July 2012
£1034.39m Pipelines and CS
(£183.87m Compressor Stations)
#160 / 26 Jul 2007 letter to Ofgem
cost increase £110m since Nov 2006
£20.6m direct cost consents etc.
£7.9m protestor action, security costs
£12.7m protestor action standing costs
£29.8m mitigation of environmental consents
£20.2m acceleration costs
£19.2m HDD's etc.
total cost same as May 2007 resanction paper ref #10
#11
8 Nov 2007 re-sanction paper for £1040m due to £90m increased costs
Increase of £222.9m above TO baseline allowance and delayed handover 31 Dec 2007
£40m due to adverse weather events beyond 1 in 10 year event and T&Cs for main works contracts (tbc)
£50m acceleration and mitigation measures to comply with planning conditions, in particular crossings
(Wormington to Honeybourne £15m descoped?? tbc)
(£75m additional spend subject to logging up)
NLMJV potential claim for £15m additional fee (tbc) ??
#10 / May 2007 paper for Total South Wales Reinforcement Scheme
Re-sanction sought for £950m (over four years) to provide
the level of obligated capacity signalled at MH
Additional resources committed by NG to mitigate consent and routing problems
Force Majeure raised for Cilfrew judicial review. (also reference made to Penspen cost estimates)
overall £191m increased cost due to:
£74.0m changes in design and method in order to mitigate environmental, consents and risks
£79.6m acceleration measures, to match stakeholder and planning consents
£20.6m direct costs consents, wayleaves, legal, communications
£8.8m direct standing costs due to access/protestor actions
£7.9m additional security costs
£840m P(0) cost advised to Ofgem
#158/159 letter dated 3 Nov 2006
increase due to realignment of risks
based on lessons learnt from 2006 construction
Stage 1 and 2 pipelines
£850.52m
(tbc) Penspen £803m (ref May 2007)
(range £604m to £1004m)
TPCR4 Settlement £792m
£437m TO RAV (04/05) prices
£280m Load related allowance
#9
25 Apr 2006 re-sanction paper for Total Reinforcement Scheme
Re-sanction sought for £759m (over four years) to progress:
the schemes to provide additional capacity at MH
Two stage contracting process to be introduced to avoid further re-sanctioning
overall 35.9% increased cost due to:
£51.5m changes in scope, 9km longer route, crossing requirements, compressor projects
£29.5m acceleration measures, increased workfaces, contractor incentives
£82.6m construction and steel price inflation, ref Nov 2005 NG study (not seen)
£13.1m previous omission of full risk allowances Felindre to Tirley
and < £8m others eg feasibility studies, easements and land purchase
Capital Plan Feb 06 (not seen)
£688m ref Apr 2006
£624m FBPQ submission
Dec 2005 (not seen)
Milford Haven to Aberdulais and Felindre to Brecon (NLJV)
£630.52m
£559m Stages 1 & 2, Jul 2005
original sanction (ref May 2007)
Felindre to Brecon and Brecon to Tirley (Stage 2 pipelines)
£535..9m
#10 part only
May 2007 forecast cost for Stage 2 pipelines
£501m increased by £118.3m from April 06 level due to:
£45.7m changes in design and method in order to mitigate environmental, consents and risks
£58.6m acceleration measures, to match stakeholder and planning consents
£7.9m direct costs consents, wayleaves, legal, communications7
£1.7m direct standing costs due to access/protestor actions
£4.4m additional security costs
see also Compressor Station costs £161m
#8 19 Jul 2005 submission to group executive
Sanction sought for £398m (over four years) required for (Stage 2):
Felindre to Tirley and Wormington to Honeybourne pipelines
and the proposed Compressor Station installations and modifications
to raise transmission capacity > present planned capacity of 240GWh/d
incl. 30km longer alternate route north of National Park and offshore alternatives
12 month EIA plus DTi consent required within further 6 months by early 2007
anticipated higher than historical level of scheme risks and costs
£358.4m estimated cost
of future scheme
ref PSC 476 Appendix 2
- 05 Oct 2003
nb includes £161m
for MH to Aberdulais
and £96.9m for
Aberdulais to Llanvetherine
Milford Haven to Aberdulais (Stage 1)
£315.03m
estimated additional £100m required
for Aberdulais to Llanvetherine pipeline
350GWh/d from late summer 2008
(will be subject to separate sanction)
Board approval sought for
£161m investment for
MH to Aberdulais pipeline (Stage 1)
#10 part only
May 2007 forecast cost for part completed Stage 1 pipelines
£270m increased by £74.4m from May 06 sanctioned level due to:
£28.40m changes in design and method in order to mitigate environmental, consents and risks
£22.9m acceleration measures, to match stakeholder and planning consents
£12m direct costs consents, wayleaves, legal, communications7
£7.1m direct standing costs due to access/protestor actions
£3.4m additional security costs
Sanctioned stage 1 cost £195.6m
May 06 (as reported May 07)
(not seen)
Compressor Stations
£183.89m
#10 part only
May 2007 forecast cost for Stage 2 Compressor Stations
£160.9 decreased by £2m from current sanctioned level
latest budgetary forecast
for MH to Aberdulais pipeline
see PW A2 below
ref PSC 476 - 05 Oct 2004
(to transport 240GWh/d from Oct 2007)
Route Change Decision "July 2005"
NLJV Target cost
£126m exceeded
(May 2007)
MH to Aberdulais and Felindre to Brecon
#2 resanction Preliminary Works Agreement 2
for MH to Aberdulais pipeline
Conceptual Design Study ref PSC 407
06 Apr 2004 estimate £5.36m revised to £6.39m
#1 resanction Preliminary Works Agreement
for MH to Aberdulais pipeline
ITT and tender evaluations (in house)
22 Aug 2003 estimate £600k no ref
#4 Preliminary Works Scheme
for Aberdulais to Llanvetherine pipeline
FEED design ref ND 308
05 Oct 2004 estimate £820k
Maximum exposure for late delivery £36m (May 2007)
#10 part only
May 2007 Scheme Incentive £18m
to achieve key completion date 31 Oct 2007
Notes:
estimated cost
Interpreted cost growth
estimated timescale
events
pipeline construction season
#x reference document, refer Appendix 1
P(50) estimated values reported
LTSEC Auction Sept 2004
350GWh/d from Oct 2007
secondary LTSEC Auction Dec 2004
now 650GWh/d from Oct 2007
and 950GWh/d from Jan 2009
#6 Preliminary Works Scheme ND 360
for Llanvetherine to Pertestow to Tirley pipeline
FEED design, EIA and ES
duplicate pipelines, will require two seasons to construct
06 Jan 2005 estimate £805k
capacity increments provided in ref ND 360 Appendix 1
#7 Preliminary Works Scheme ND 359
for Wormington Compressor Station and reverse flow provisions
FEED design
06 Jan 2005 estimate £732k
capacity increments provided in ref ND 359 Appendix 1
2006 pipeline "season"
2007 pipeline "season"
Reported Acceleration costs
up to Nov 2007
~ £240m
Period covered by Grant Thornton Forensic Accounting Investigations
October 2007:
NGrid SAP change
Deadline
"Oct 2007"
650 GWh/day
Capacity
Deadline
"Jan 2009"
950GWh/day
APPENDIX 2
DEVELOPMENT OF SANCTIONED COSTS
FOR THE MILFORD HAVEN PROJECT
EFFICIENCY REVIEW BY RUNE/PENSPEN 2015
based on National Grid Sanction Paper documentation
Report 14262-RPT-PM-001