Case Study:

Corrib Onshore Pipeline

Ciarán Butler
Overview

- Project Background
- Consultation with Local Community
- Statutory Planning Context
- Corrib Planning Applications
- Project Progress
- Other lessons
Corrib Onshore Pipeline
Project Milestones

- Corrib Gas Field discovered in 1996
- Statutory applications submitted in 2001
- Section 40 Consent to Construct a Pipeline granted in 2002
- Planning approval for Terminal (& peat deposition site) granted in 2004
- Preparation for construction of onshore pipeline in 2005
- Rossport 5 2005
- Construction of Onshore Pipeline halted 2005
Project Milestones

- Independent Safety Review 2006
- Mediation process and recommendations 2006
  - Key recommendation: ‘…modify the route of the pipeline in the vicinity of Rossport to address community concerns regarding proximity to housing.’
- RPS appointed to find modified pipeline route 2007
- Planning & Development (Strategic Infrastructure) Act 2007
Project Milestones

- Applications 2008
- Applications 2009
- Further information including revised EIS 2010
- Statutory approvals granted 2011
- First Gas anticipated early 2015
Summary of Project Timeline

- Gas discovery to statutory approvals: 15 years
- Anticipated project timeline: 19 years
Some Key Issues

- First gas field development since Kinsale (discovered in 1973)
- Public consultation from start could have been much better
- Regulatory system was in state of flux
  - Gas Act Section 40 Process (no scope for change)
  - Planning & Development (Strategic Infrastructure Act)
  - Foreshore Licensing process
  - CAO process
- By now, many issues have been resolved
  - Established coordination among statutory bodies
  - CER Petroleum Safety Framework (upstream & downstream)
  - Greater detail
  - Better clarity for applicants
Consultation with Local Community

JUSTICE AND FREEDOM FOR ROSSPORT FIVE

SHELL OUT!
Consultation with Local Community

- Consultation phase lasted 18 months
- March, 2007: Workshop on route development criteria
- Development of alternative pipeline corridors
- Short-listing of pipeline corridors
- Detailed route selection
- Presentation of emerging preferred route
- Submission of application
- Move to information phase
Consultation with Local Community
Consultation with Local Community

Forms of Consultation used

- Establishment of local Project Office in Belmullet
- Public Meetings (starting in February, 2007)
- Scheduled meetings with individuals and groups
- Workshop on route selection criteria
- Regular public information brochures (6 of these published and circulated)
- Information phone line
- Project email
- Project website www.corribgaspipeline.ie
Consultation with Local Community

Lessons / Reflections

- Highly contentious project
- Charged atmosphere at some public meetings
- Very strong views
- Need to be understanding yet independent
- Some members of public ‘put off’ by active protests
Consultation with Local Community

Lessons / Reflections

- Experienced team
- Focus on gathering input, identifying key issues and giving available facts
- Advantage of independence – ‘intermediary role’
- Consistent messaging
- Explain how to engage with consultation process
- Queries etc. must be followed up on
Consultation with Local Community

Lessons / Reflections

- Some individuals chose not to engage
- Confusion regarding the various statutory processes and how these interact
- Confusion around Oral Hearing process
- Misinformation is unhelpful to everyone
- Whole community deserves access to clear facts and opportunity to engage
- Potential to make projects better through community engagement
Positive Outcomes for Local Community

- Social Investment Fund (€8.5m)
- Employment
- University scholarships
- Rossport Group Water Scheme
- Kilcommon GAA materials
- Improved roads
- Fibre-optic links
- Biodiversity enhancement
Statutory Planning Context

Gas Act 1976 (Section 40)

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12 Mile Limit

Sruwaddacon Bay

Corrib Gas Field

Bellanaboy Bridge Gas Terminal
Statutory Planning Context

- Coordination of parallel processes

- Central documents:
  - Project EIS
  - Application Drawings

- Consistent information in application and responses to queries, clarifications and requests for further information

- Logistics

- Risk of conflicting conditions? (much reduced now e.g. CER / ABP memorandum of understanding)
Planning Applications

- Integrity of application is critical
- Adequate information (surveys, site investigations, seasonal factors etc.)
- Adequate consultation (stakeholders, issues, alternatives, ideas)
- Provide consistent and reliable information
- Develop proposal sufficiently (need to know likely impacts)
Planning Applications

- Describe clearly
- Where possible, avoid potential impacts
- Unable to avoid potential impacts: Mitigate
- Apply for what is required for the development
- Develop a realistic programme for applications (saves time in the long run)
- Develop a realistic construction programme
Corrib Planning Applications

Pre-Consultation with ABP

- Guidance on process
- Guidance on pipeline planning boundary (14m)
- Emphasis on clear consideration of alternatives
- Engagement when application submitted
2008 Application

- Separate applications for onshore pipeline and peat deposition site
- Further information request (including site investigations data for Rossport Commonage)
- Planning boundary issue
- Application withdrawn
Corrib Planning Applications

2009 Application

- Planning boundary extended (100m)
- Combined application for onshore pipeline and peat deposition site
- Additional survey information included
- Oral Hearing (May – July, 2009)
2009 Application – Request for Further Information

- ABP considerations relating to safety (consequence based).
- Considerations around traffic impacts
- Impacts to residential amenities and development potential at Rossport during construction and operation
- Definition of project boundaries (Offshore Pipeline / Onshore Pipeline / Foreshore / Local Authority boundary (HWM)).
- Requirement to modify pipeline route between specified chainages (…generally in accordance with ‘Corridor C’).
2010 Response to Request for Further Information

- Expanded section on pipeline safety addressing all of ABP’s queries
- MAOP of 100bar specified to enable meeting ABP requirement on hazard distance / proximity (see next slides).
- Section of pipeline tunnelled in order to eliminate environmental impacts on the SAC while meeting ABP requirement for modified route.
- Significantly larger construction undertaking and longer schedule
- Oral Hearing (August – October, 2010)
- Approval granted January, 2011.
Corrib Planning Applications

Hazard distances for 144barg and 20” pipeline overlapped…

…resulting in SEPIL specifying MAOP of 100barg.
Corrib Planning Applications

Lessons / Reflections

- Develop application around project requirements.

- Necessity for clarity and thoroughness in demonstration of safety by applicant.

- Independence of ABP from competent authority on pipeline safety (DCENR / CER).

- Potential for ABP to specify new standards.

- Potential for ABP to require major changes to development.
Lessons / Reflections

- Importance of process and boundary limits.

- Importance of Oral Hearing process: opportunity to clarify and elucidate.

- Expert inputs are critical. Need to prepare.
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<tr>
<th>Parameter</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
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<tr>
<td>Length</td>
<td>9.2km</td>
<td>8.3km</td>
</tr>
<tr>
<td>Diameter</td>
<td>20”</td>
<td>20”</td>
</tr>
<tr>
<td>Design Pressure</td>
<td>345bar</td>
<td>144bar</td>
</tr>
<tr>
<td>MAOP (due to ABP hazard distance requirements)</td>
<td>N/A</td>
<td>100bar</td>
</tr>
<tr>
<td>Normal operating pressure</td>
<td>90 - 110bar</td>
<td>&lt; 92bar</td>
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## Approved Onshore Pipeline (2001 vs 2011)

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Petroleum (Exploration & Extraction) Safety Act 2010

1 Introduction

1.1 Background

1.1.1 The Petroleum Safety Framework

The Electricity Regulation Act 1999, as amended inter alia by the Petroleum (Exploration and Extraction) Safety Act 2010 (the Act) gives the Commission for Energy Regulation (CER) responsibility for the safety regulation of petroleum exploration and extraction activities in Ireland. The Act requires the CER to "establish and implement a risk-based Petroleum Safety Framework" (referred to in this document as the Framework). The Framework is the overall system established by the CER to regulate the safety of petroleum activities, in particular designated petroleum activities, carried on by petroleum undertakings. The Framework established under the Act is a permitting regime, is goal-setting and risk-based, whereby petroleum undertakings are required to reduce risks to a level that is as low as is reasonably practicable (ALARP).

• Responsibility for safety regulation is with CER for designated activities
• Risk based
• Design safety case prior to application of planning permission
• Safety Permit required prior to operation
Pipeline Construction (2013)
Corrib Tunnel Boring Machine (Fionnuala)
Onshore Pipeline
Aughoose Tunnelling Compound
Tunnel ‘break-through’ (May, 2014)
Reinstatement

Biodiversity enhancements

Best practice reinstatement in sensitive areas
Reinstatement

River Crossing

Reinstated River Crossing
Design Development

- Importance of data management on multi-disciplinary projects.
- Use of Geographical Information System (GIS) central to early design and planning stages.
- Compatibility of raster data sets with design in ‘vector space’
- Raster mapping vs. vector mapping.
3D design used initially for photomontages and developed during detailed design stages into BIM model.

Huge potential of 3D design and BIM for detailed design, construction and operational phases. Start early.

Coordination of document review and management is critical.
THANK YOU