

# SWDWP PFI Project

District Heating/Sustainable Energy Opportunities Conference

Project Introduction

Paul Carey

3<sup>rd</sup> August 2011

# Agenda

- ▶ Introductions
- ▶ Presentation on MVV's proposal
- ▶ Review of district heating potential
- ▶ Review of housing associations stock condition
- ▶ Alternatives to district heating
- ▶ Information requirements
- ▶ Future actions

# Municipal utility companies and major locations of the MVV Energie Group

## Key Facts MVV Energie AG

- ▶ Third-largest German operator of EfW and biomass facilities
- ▶ No. 4 among German district-heating utilities
- ▶ No. 5 among German electricity suppliers



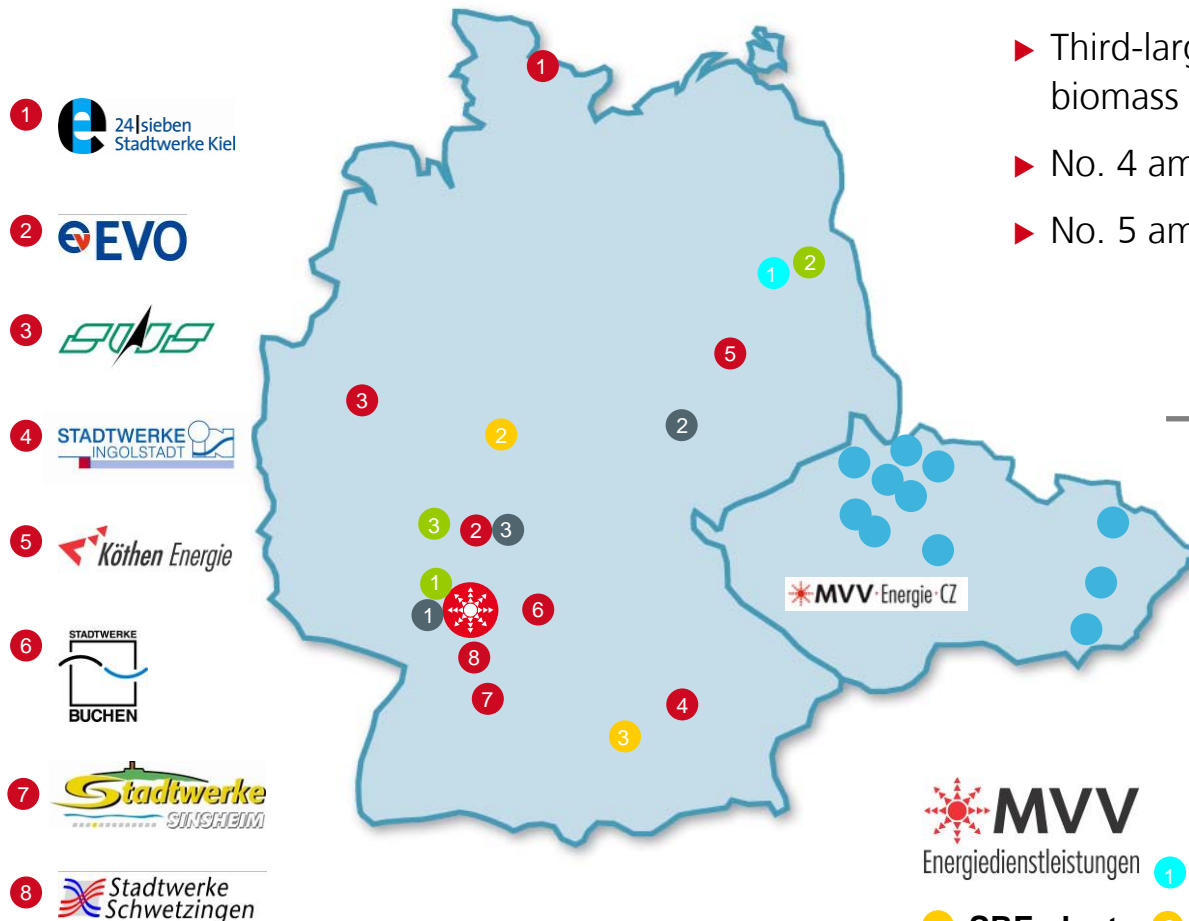
## ● Energy from Waste ● Biomass power plants

- 1 Mannheim
- 2 Leuna
- 3 Offenbach

- 1 Mannheim
- 2 Königs-Wusterhausen
- 3 Wicker

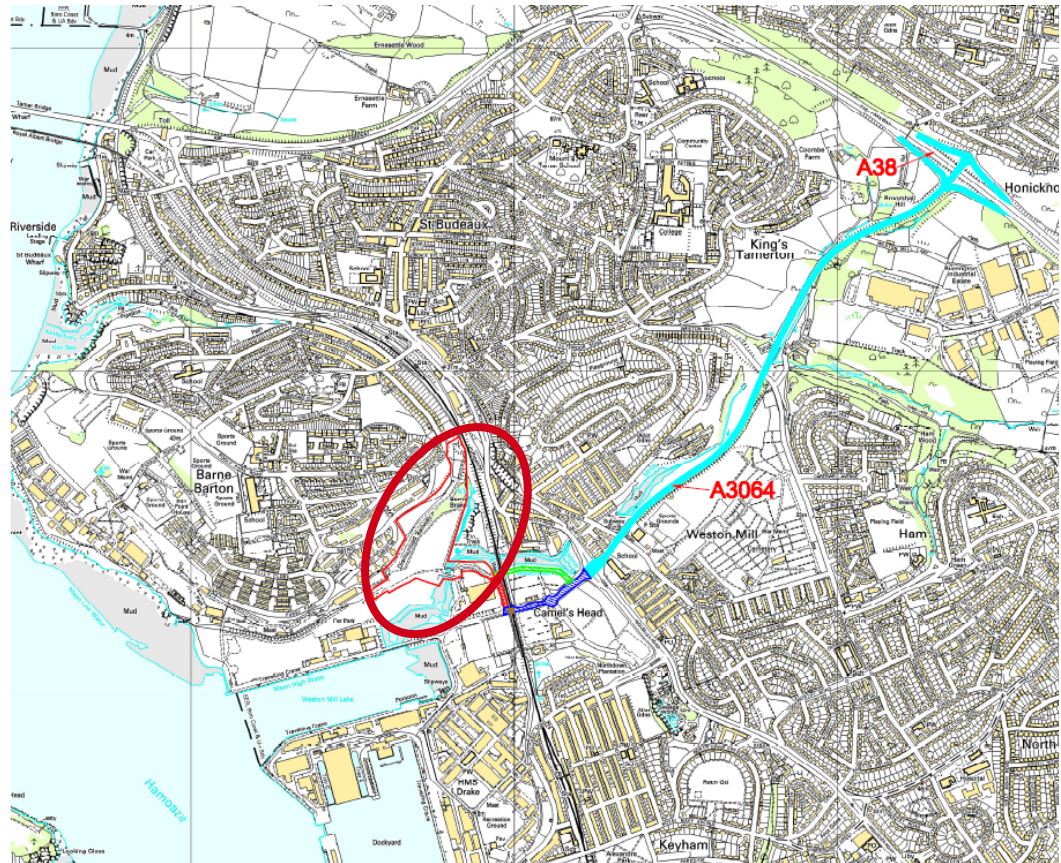


- SRF plants
- 1 Berlin
- 2 Korbach
- 3 Gersthofen



# MVV's proposals offer a sustainable and deliverable solution for the Partnership's household waste

- ▶ 245,000 tpa energy from waste plant
- ▶ North Yard of Devonport Naval Base
- ▶ Located in industrial urban context
- ▶ Immediate delivery of combined heat and power
- ▶ Close to major road network
- ▶ Fits with local planning policies



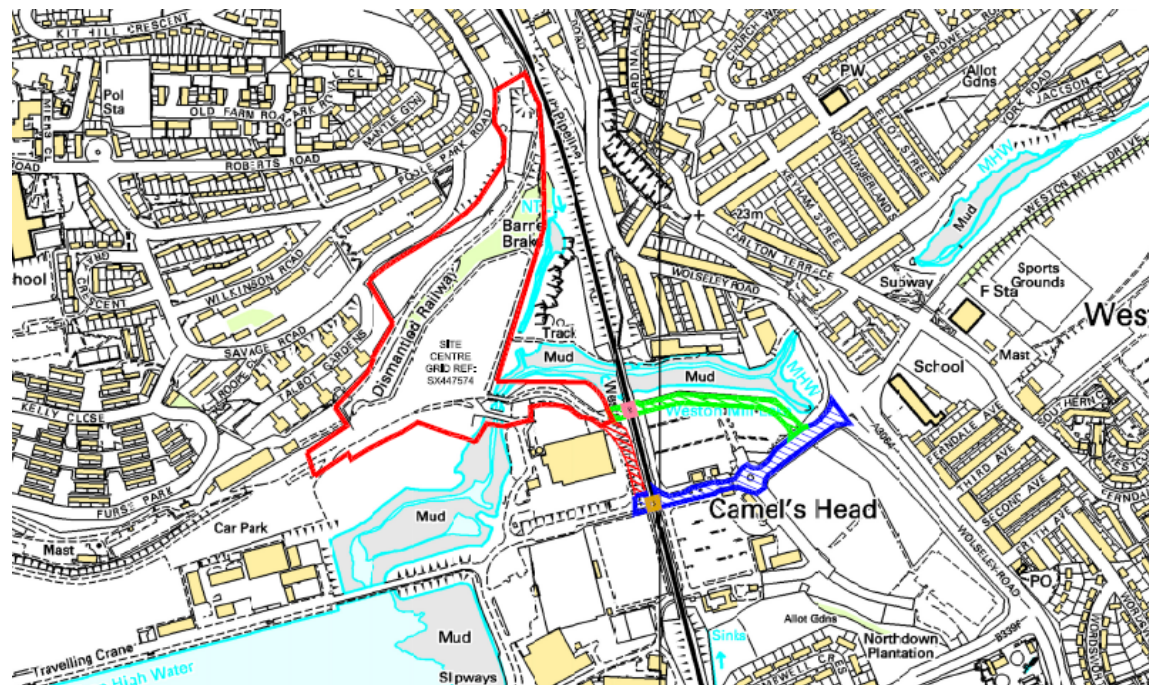
Site scores highly when the local site assessment is re-run



## Case Study - South West Devon Waste Partnership HMNB Devonport - North Yard location



## HMNB Devonport – access



- ▶ Main entrance via Camels Head gate
- ▶ Immediate access to Wolseley Road and Weston Mill Drive
- ▶ Separate access outside of MOD secure area
- ▶ Traffic impact considered minimal

Road access is excellent



# The proposed development and compliance with local policies

- ▶ High level policies strongly support Combined Heat and Power (CHP) Generation derived from Energy from Waste
- ▶ Devonport Dockyard site offers significant heat and power demand
- ▶ Daylighting, sunlighting and overshadowing
- ▶ Site selection in context of original Waste DPD
- ▶ Fit with national and local policies
- ▶ Mitigations include off site landscaping and management of Blackie's Wood



**Supports the waste hierarchy and its objectives**

# The planning application: what does this all include?

- ▶ **Covering letter**
- ▶ **Planning application forms and supporting statement**
- ▶ **Drawings**
- ▶ **Environmental assessment**
- ▶ **Appendices**
- ▶ **Non-technical summary**



**8 volumes; 3000 pages**



# Covering letter and planning application



COPY

Alan Hatridge  
Plymouth City Council  
Armeda Way  
Plymouth  
PL1 2AA

Our Ref: D123899  
Your Ref:  
Date: 10 May 2011



Application for Planning Permission,  
Town and Country Planning Act 1990

**DEVELOPMENT MANAGEMENT  
PLANNING AND REGENERATION SERVICE**  
Department of Development  
Floor 9 Civic Centre  
Plymouth PL1 2AA  
Tel: 01752 304366  
Email: [planningconsents@plymouth.gov.uk](mailto:planningconsents@plymouth.gov.uk)  
[www.plymouth.gov.uk/planning](http://www.plymouth.gov.uk/planning)

Dear Mr Hatridge

## APPLICATION FOR PLANNING PERMISSION – TOWN AND COUNTRY PLANNING ACT 1990

**CONSTRUCTION AND OPERATION OF AN ENERGY FROM WASTE COMBINED HEAT AND POWER FACILITY TO MANAGE UP TO 285,889 TONNES OF WASTE PER YEAR AT NORTH YARD, DEVONPORT, PLYMOUTH.**

We hereby submit an application for planning permission for the above development. The application is accompanied by an Environmental Statement prepared under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.

Please find enclosed six copies of a folder titled 'Energy from Waste Combined Heat and Power Facility, North Yard, Devonport Planning Application and Supporting Documents'. This folder contains the following documents:

- TAPP Application Form
- Ownership Certificate
- Agricultural Holdings Certificate
- Copy of Notice
- Planning Application Supporting Statement
  - o Appendix 1 – Design and Access Statement
  - o Appendix 2 – Statement of Community Involvement
  - o Appendix 3 – Climate Change and Sustainability Statement
  - o Appendix 4 – Energy, Economy, Employment and Education Benefits Statement
  - o Appendix 5 – Health and Wellbeing Assessment
  - o Appendix 6 – Habitats Regulations Assessment
  - o Appendix 7 – Planning Policy Analysis
  - o Appendix 8 – Draft Heads of Terms

Please also find enclosed six copies each of two folders titled 'Energy from Waste Combined Heat and Power Facility, North Yard, Devonport Planning Application Drawings (Volume 1 and Volume 2)', containing the following planning application drawings:

- PA01 – Site Location Plan
- PA02 – Planning Application Boundary

Scott Wilson Ltd  
3rd Floor, Mayflower House  
Armeda Way, Plymouth, Devon  
PL1 1LD, United Kingdom  
Tel: +44 (1752) 678 190  
Fax: +44 (1752) 678 791  
[www.ltd-ecobuild.com](http://www.ltd-ecobuild.com)

Scott Wilson Ltd  
Registered in England No 666426  
Registered Office: South House, Longdon Lane, Basingstoke, Hampshire, RG22 7PT, United Kingdom



<b>1. Applicant Name, Address and Contact Details</b>			
Title	First name	Surname	
Company name: <input type="text"/>			
Street address	Telephone number	Country Code	National Number
Town/City	Mobile number	Extension Number	
County	Fax number	Email address	
Country	Postcode		
Are you an agent acting on behalf of the applicant? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>2. Agent Name, Address and Contact Details</b>			
Title	First Name	Surname	
Company name: <input type="text"/>			
Street address	Telephone number	Country Code	National Number
Town/City	Mobile number	Extension Number	
County	Fax number	Email address	
Country	Postcode		
<b>3. Description of the Proposal</b>			
Please describe the proposed development including any change of use: Construction and operation of Energy from Waste Combined Heat and Power (EH CHP) facility, principally comprising: EH CHP building (incorporating storage hall, waste bunker hall, boiler house, turbine/boiler house, chimney, bottom ash collection area, control room, waste treatment plant building, flue gas cleaning system, storage silos, and administrative blocks), air control centre, access roads and fuelled areas, sculptures, new clear span bridge, weighbridge, gate house, vehicle wash and access building, transformer compound and landscaping, new and replacement CHP plant, electricity cabling and switching building, standby generator, new access road to Bull Point and temporary construction compound.			
Has the building, work or change of use already started? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

8 volumes; 3000 pages

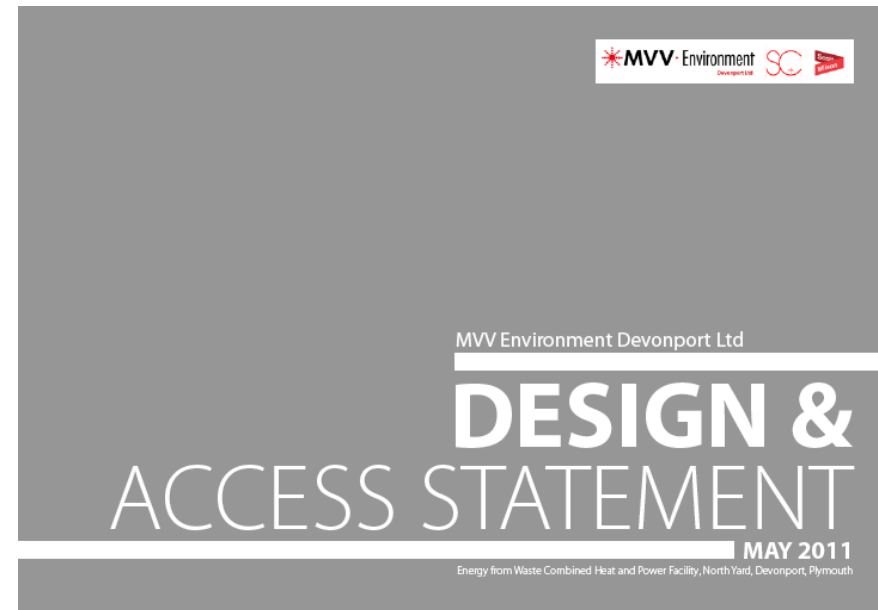
# Planning Application Supporting Statement - Contents

1	Introduction to the Proposed EfW CHP Scheme and Planning Application.....	1
2	The Planning Application and Accompanying Documents.....	9
3	The Main Planning Considerations .....	17
4	The Application Site .....	25
5	Details of the Proposed Development .....	32
6	Planning Policy.....	66
7	Need .....	86
8	Sustainable Development.....	88
9	Environmental Effects and Amenity Impacts .....	96
10	Summary of Supporting Documents .....	111
11	Compatibility with the Development Plan .....	121
12	Conclusions.....	145

**8 volumes; 3000 pages**

# The PASS has eight supporting appendices

- ▶ **Design and Access Statement**
- ▶ **Statement of Community Involvement**
- ▶ **Climate Change and Sustainability Statement**
- ▶ **Energy, Economy, Employment and Education Benefits**
- ▶ **Health and Well Being**
- ▶ **Habitats Regulations Assessment**
- ▶ **Planning Policy Analysis**
- ▶ **Section 106 Heads of Terms**



**8 volumes; 3000 pages**

There are 40 drawings



**8 volumes; 3000 pages**



# The Environmental Statement is the result of the Environmental Impact Assessment

- ▶ Legal requirement to set standards
- ▶ Responds to PCC Scoping Opinion issued in 2010
- ▶ Main text
- ▶ Figures
- ▶ Appendices
- ▶ Non-technical Summary
- ▶ Confidential Badger Method Statement



8 volumes; 3000 pages

# Environmental Statement: Contents

## Part A: Context

- 1 Introduction
- 2 EIA Legislation and General Methodology
- 3 The Need for the Proposed Development
- 4 Land Use: the Site and Surrounding Area
- 5 Alternatives to the Proposed Development
- 6 Description of the Proposed Development

## Part C: Conclusions

- 20 Summary

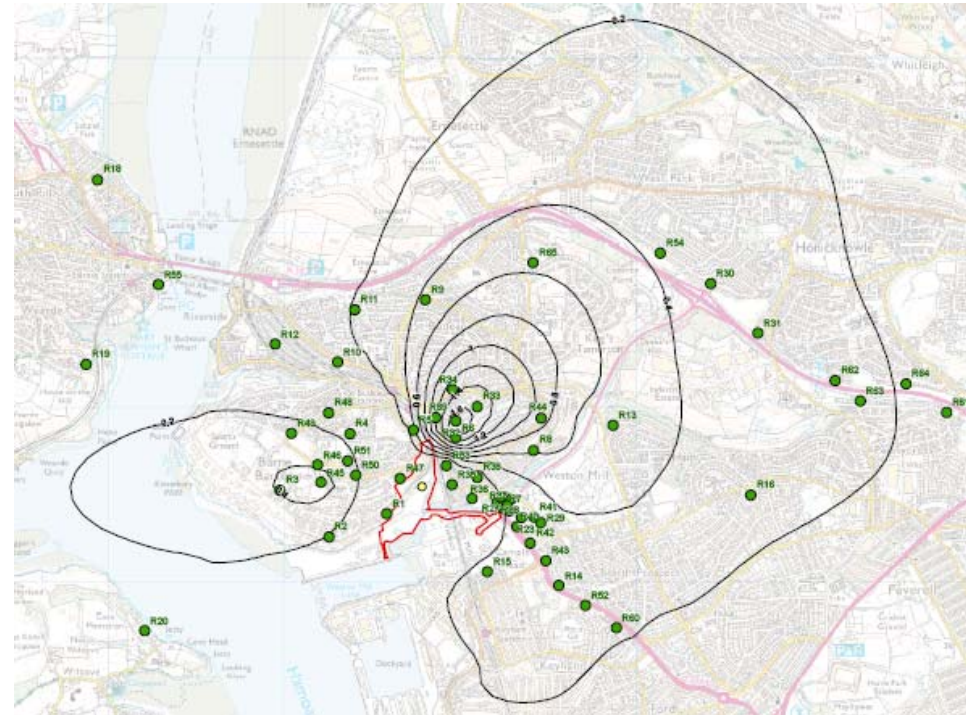
## Part B: Assessment

- 7 Ecology and Nature Conservation
- 8 Landscape and Visual
- 9 Cultural Heritage
- 10 Contamination: Land and Water Quality
- 11 Hydrology, Hydrogeology and Flood Risk
- 12 Traffic and Transport
- 13 Air Quality
- 14 Noise and Vibration
- 15 Construction Waste
- 16 Daylight, Sunlight and Overshadowing
- 17 Socio-economics
- 18 Health and Wellbeing
- 19 Inter-relationships and Cumulative Effects

**8 volumes; 3000 pages**

# Environmental Statement - conclusions

- ▶ **Air quality – emissions are well below the limits allowed**
- ▶ **Traffic – no significant impact and no requirement to modify Wolseley Road junction**
- ▶ **Noise – within acceptable limits for noise at night, no problems with noise during day**
- ▶ **Health and Well Being – no significant impact on health**
- ▶ **Contamination – no significant impact**



**Apart from visual there is minimal adverse impact**



# Environmental Statement - conclusions

- ▶ **Daylight, sunlight and over shadowing – no significant impact**
- ▶ **Visual impact – significant impact on nearby properties, additional landscaping required**
- ▶ **Sustainability – improvement**
- ▶ **Ecology – no significant impact**
- ▶ **Others – no significant impact**



**Apart from visual there is minimal adverse impact**



# Architecture!



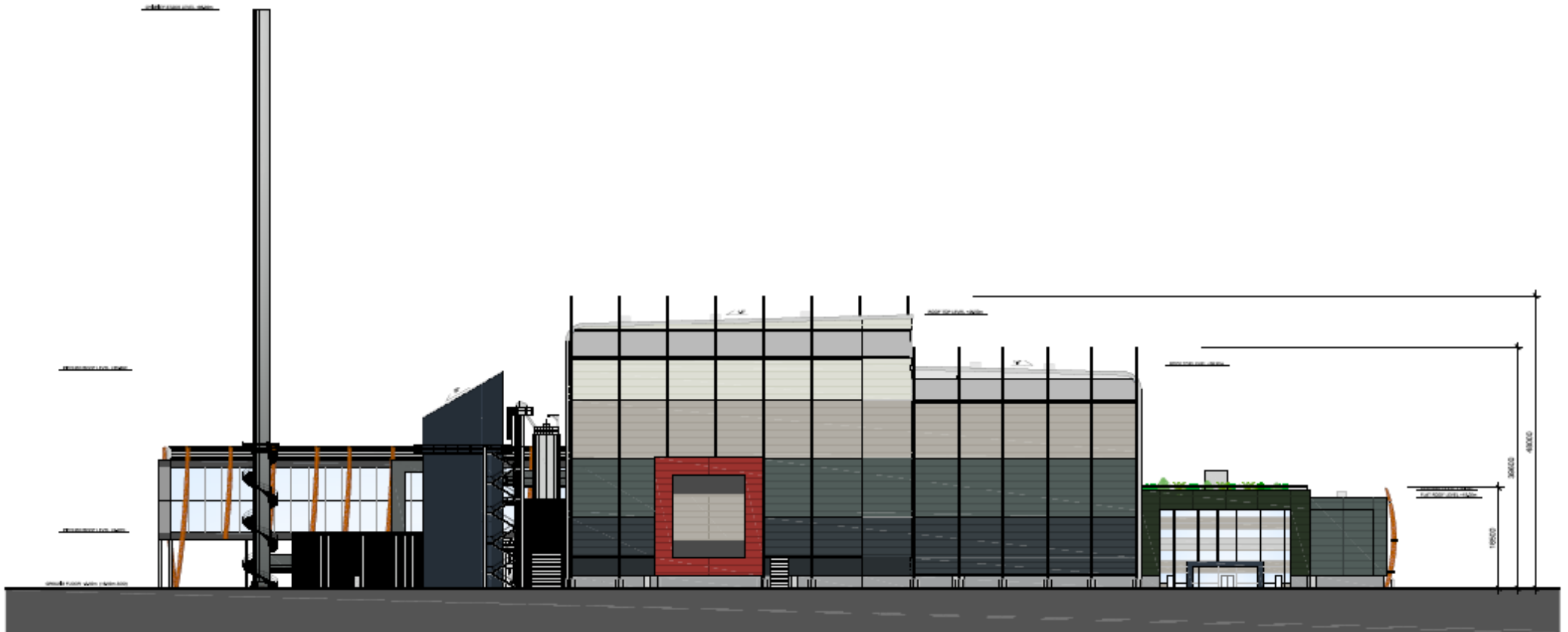
**Architecture is the most subjective issue and the hardest to get right!**

# Architecture!



Architecture is the most subjective issue and the hardest to get right!

# Architecture!



Architecture is the most subjective issue and the hardest to get right!

# Architecture!

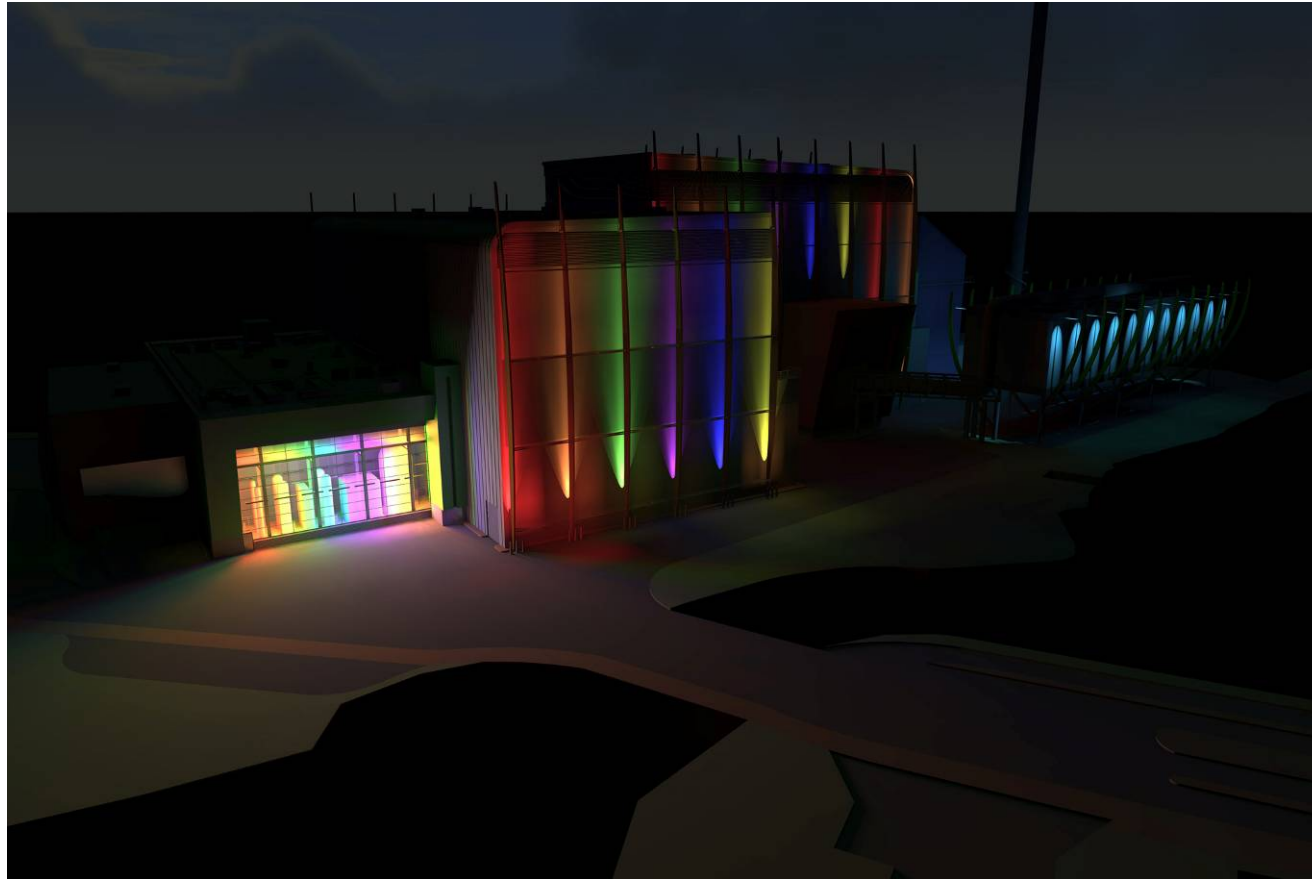


Architecture is the most subjective issue and the hardest to get right!





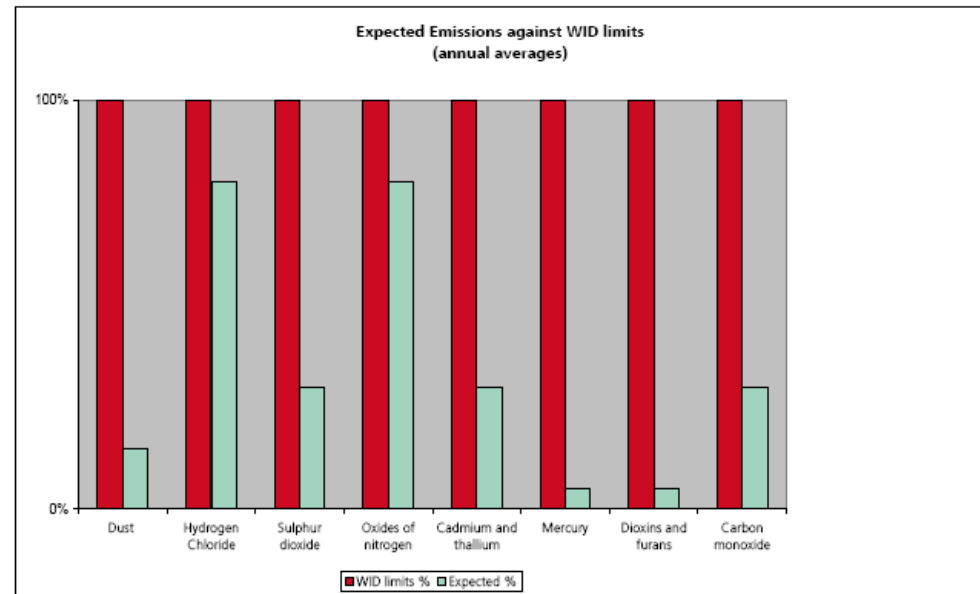
## Night time lighting



Architecture is the most subjective issue and the hardest to get right!

## Benefits - environment

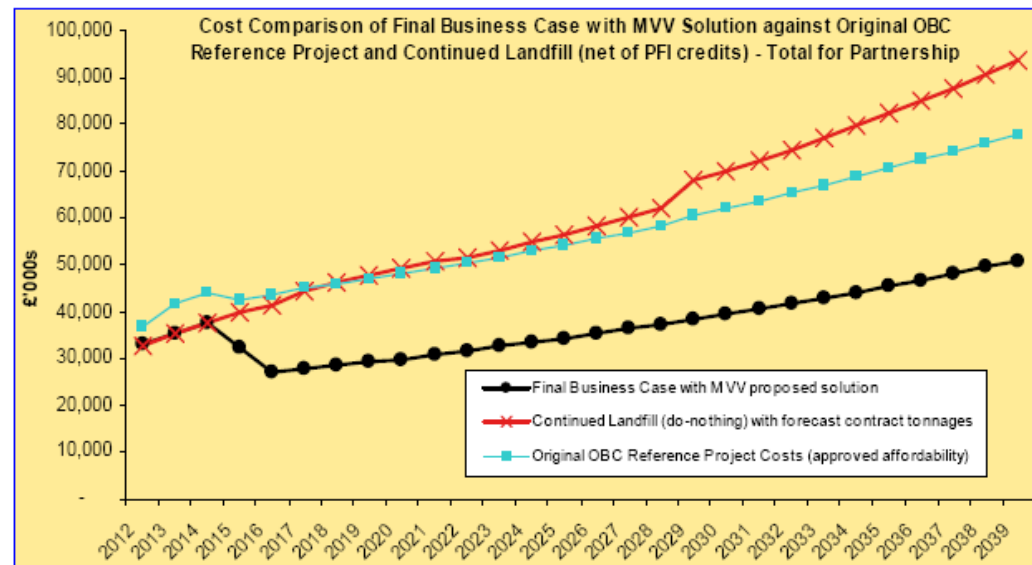
- ▶ **Guaranteed 97% waste diversion from landfill**
- ▶ **Expected close to 100% diversion**
- ▶ **Facility will save over 70,000 tonnes of carbon dioxide equivalent per year (equal to 28,000 cars)**
- ▶ **The Naval Base will reduce its emissions and carbon footprint by using EfW green energy**
- ▶ **MVV's emission levels will be continually monitored and below the safe levels set in the Waste Incineration Directive (WID)**



There are significant economic benefits for several stakeholders

## Benefits - economic

- ▶ At SWDWP projected tonnages MVV's solution will cost £436m (£389m less than OBC estimate)
- ▶ Defra is also providing PFI credits worth £177m over the life of the contract to SWDWP
- ▶ Compared to landfill SWDWP saving is £675m
- ▶ MOD are estimated to save at least 20% through purchase of MVV's energy
- ▶ MVV's solution will also provide jobs and local waste disposal for businesses



There are significant economic benefits for several stakeholders



## Benefits - economic

	<b>SWDWP in total £m</b>	<b>Plymouth City Council £m</b>	<b>Torbay Council £m</b>	<b>Devon County Council £m</b>
<b>Reference Case estimate</b> (single EfW facility with updated tonnage including tonnage previously assumed to landfill added into Contract Waste)	<b>824.9</b>	<b>404.7</b>	<b>134.9</b>	<b>285.3</b>
<b>MVV's solution cost at Contract Close</b>	<b>436.0</b>	<b>212.2</b>	<b>71.4</b>	<b>152.5</b>
<b>Estimated financial benefit of MVV's solution over Reference Case</b>	<b>388.8</b>	<b>192.5</b>	<b>63.5</b>	<b>132.8</b>
<b>PFI Revenue Support Grant</b>	<b>177.0</b>	<b>82.9</b>	<b>29.3</b>	<b>64.8</b>

There are significant economic benefits for several stakeholders

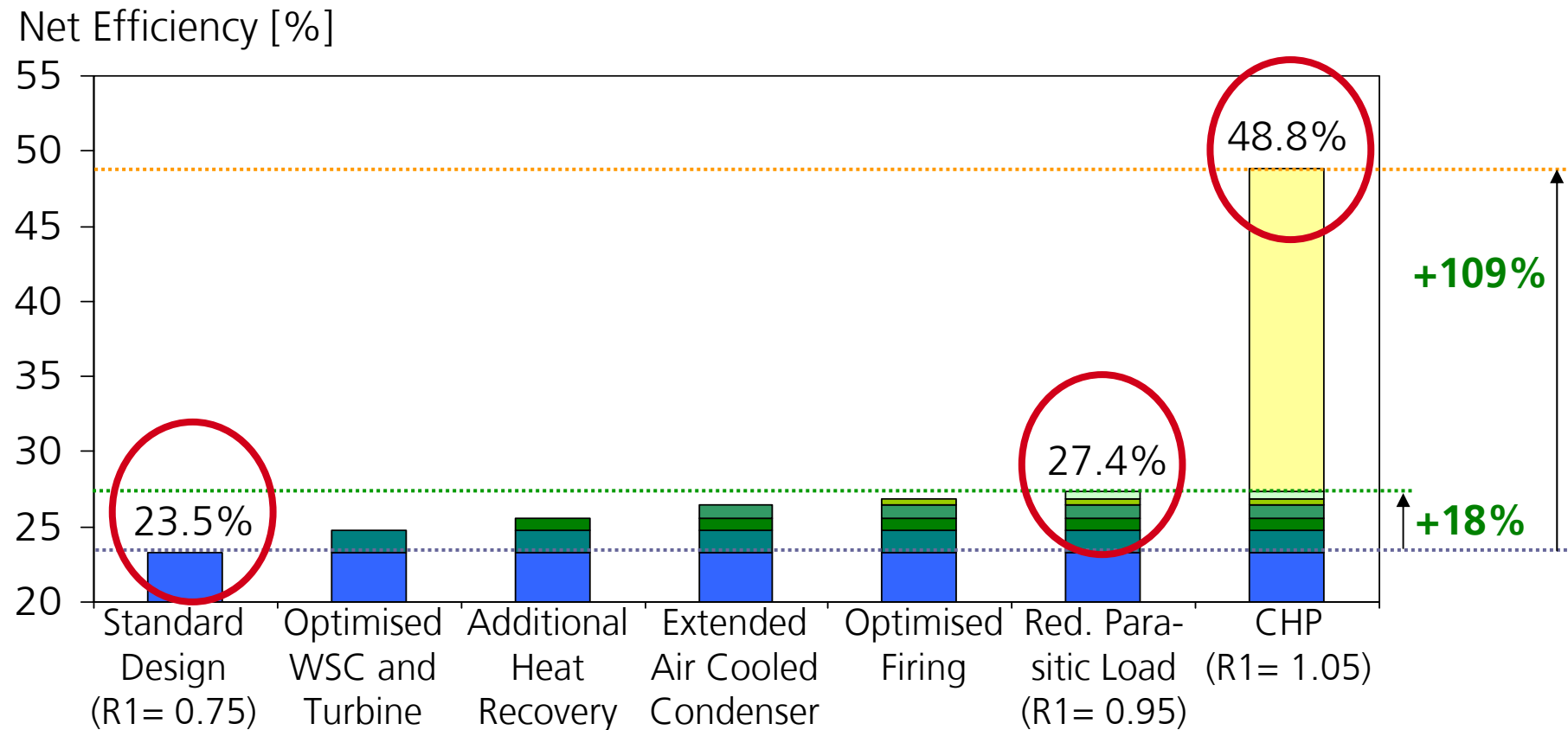
## Benefits - energy

- ▶ Produce significant usable energy 50% of which is classed as 'green'
- ▶ Provide for Naval Base's electricity needs as well as surplus to the Grid
- ▶ Provide Naval Base's heating needs with existing heating boilers put on standby
- ▶ Potentially extend a district heating network into Plymouth
- ▶ Achieve very high energy efficiency levels at all times



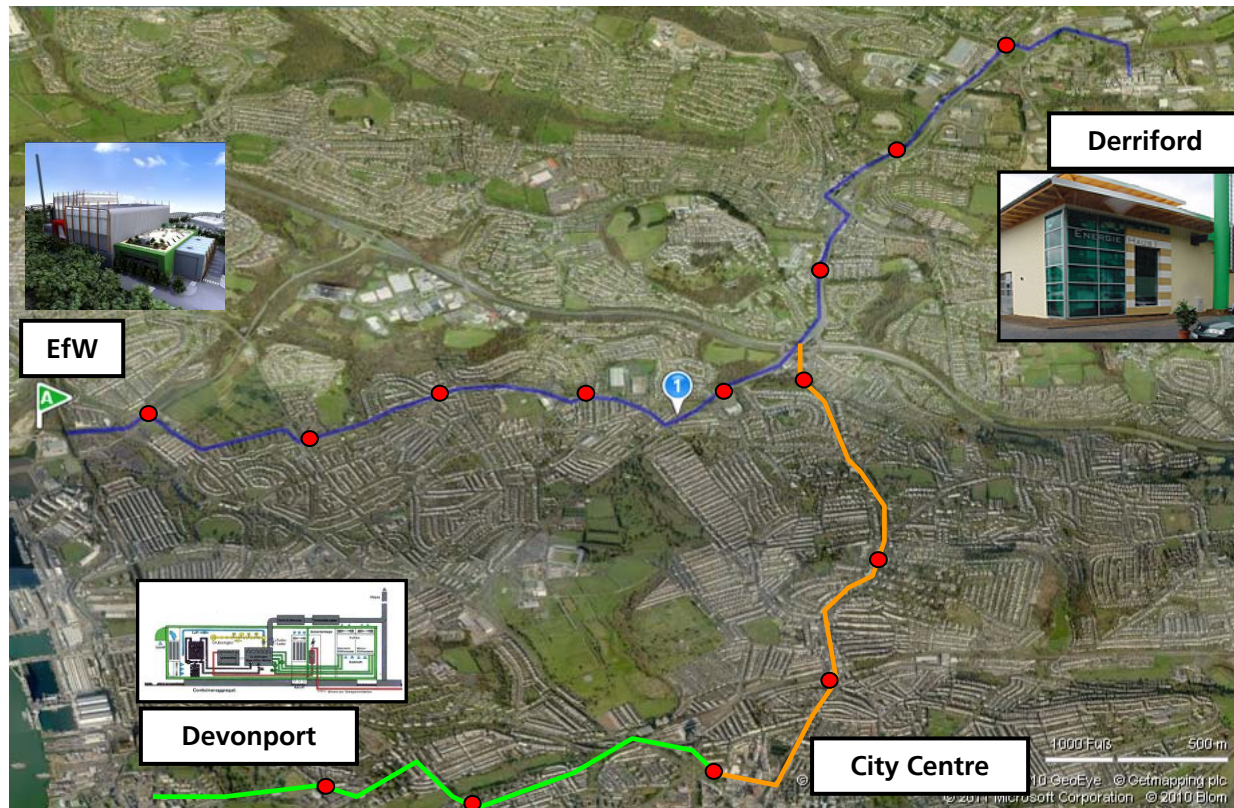
**With or without heat, MVV's proposals are very efficient**

## MVV will achieve the highest possible efficiencies



With or without heat, MVV's proposals are very efficient

With MVV district heating is a real possibility



● pump stations

MVV will take part in PCC's district heating procurement exercise



## Benefits – employment and education

- ▶ Up to 300 jobs during construction
- ▶ 33 full time jobs in operation
- ▶ Approx 70 secondary jobs with operations sub-contractors
- ▶ Training opportunities for university and college students
- ▶ Other support for students



Relationships and trust will be established early on

## Benefits - community

- ▶ Community fund of £52,000 per annum covered by Section 106 agreement
- ▶ Community use of Visitor Centre
- ▶ Improvements to Blackies Wood
- ▶ Improvements to Weston Mill Creek
- ▶ Play area on Savage Road
- ▶ Additional landscaping
- ▶ Full time Community Liaison Manager employed by MVV
- ▶ Sustainable energy improvements in the immediate locality?



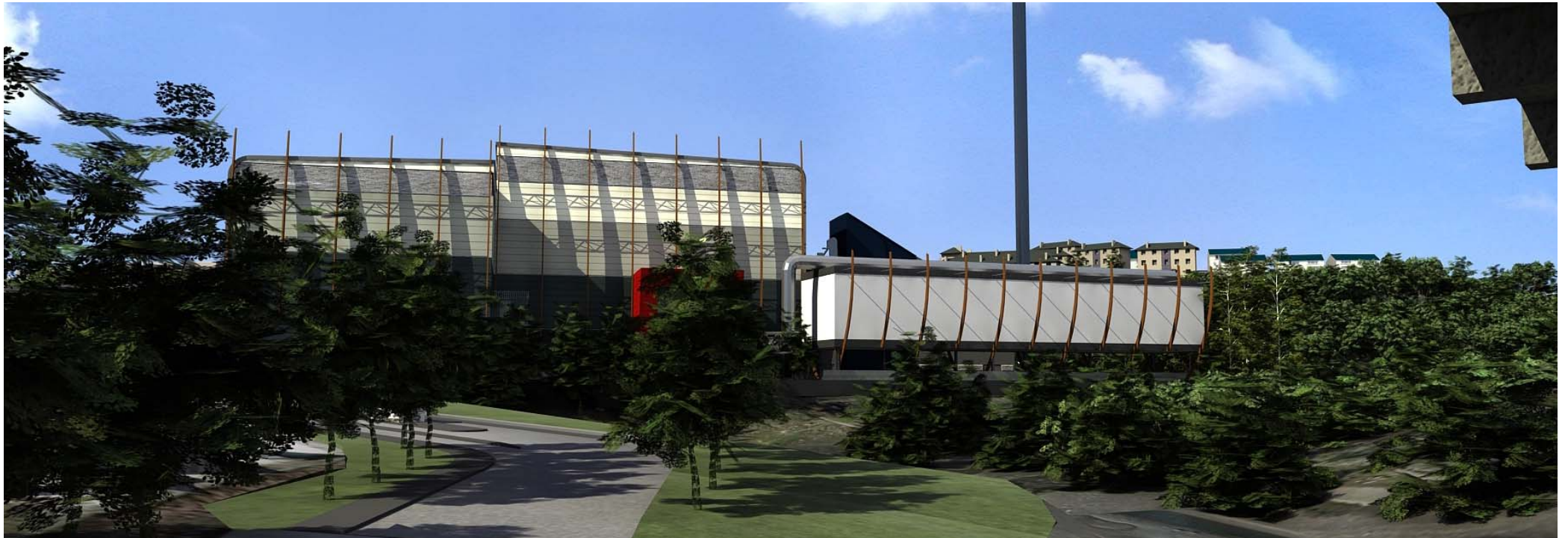
Relationships and trust will be established early on

## Consideration of the application is well underway

- ▶ Incinerator Liaison Committee set up in May
- ▶ MVV want the ILC to be a central plank to its outreach to the community
- ▶ Copies of planning application in MVV's offices, Civic Centre and libraries
- ▶ Application down loadable from MVV and PCC websites
- ▶ Free copies of Non-technical Summary
- ▶ Public exhibitions from 7<sup>th</sup> to 16<sup>th</sup> June
- ▶ Comments invited; questions will be answered
- ▶ Regulation 19 letter issued 1<sup>st</sup> July



**Community benefits and mitigation measures under a Section 106 agreement are key**



**Thank you for listening!**