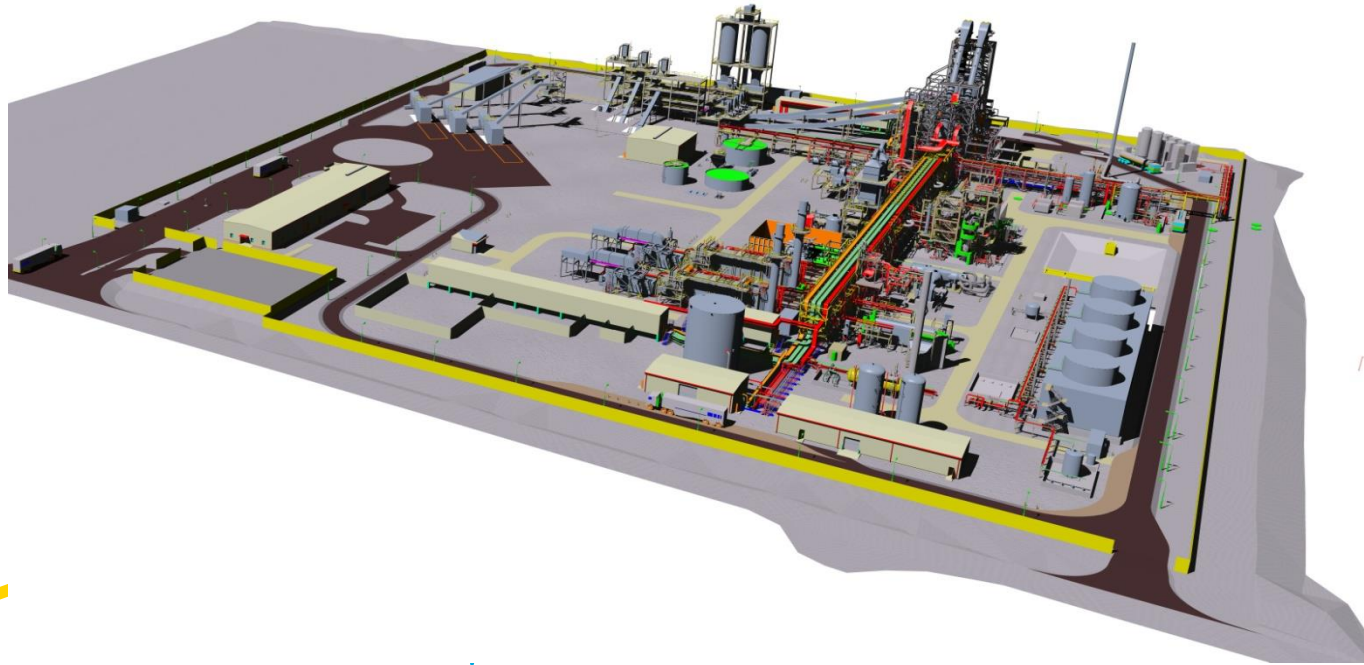


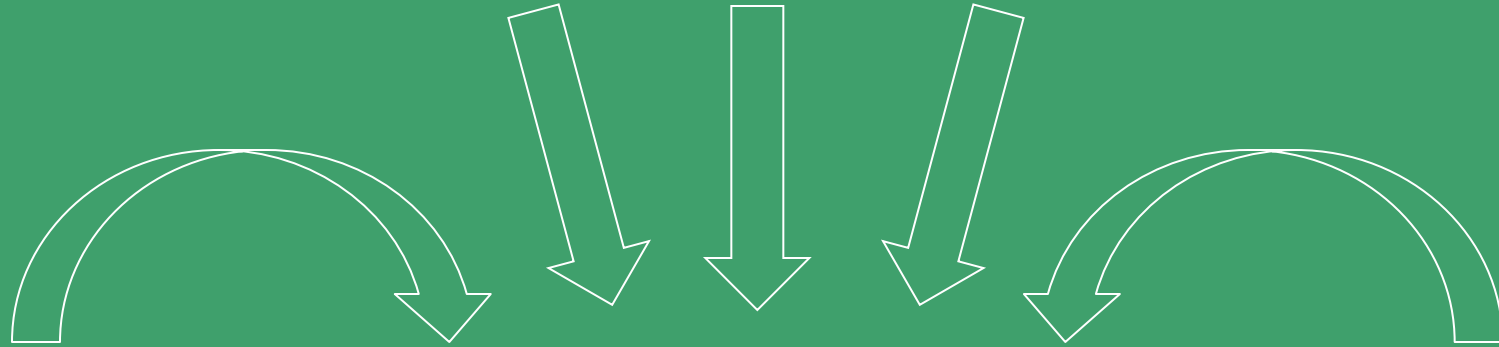
Tees Valley Renewable Energy Facility



“The Year of the Build”

Hitting the Mark - UK Energy from Waste

GHG
Renewable
Energy
Reduction
Targets
UK
Incentives



LT Power
Capacity
Shortage



EU/UK Landfill
Directive

Enough UK MSW Generated per Year for ~100 Tees Valley-sized plants

330MM tonnes total waste generation annually in UK

Of that, ~100MM tonnes is suitable for TV1-type plant, the rest is hazardous or unsuitable

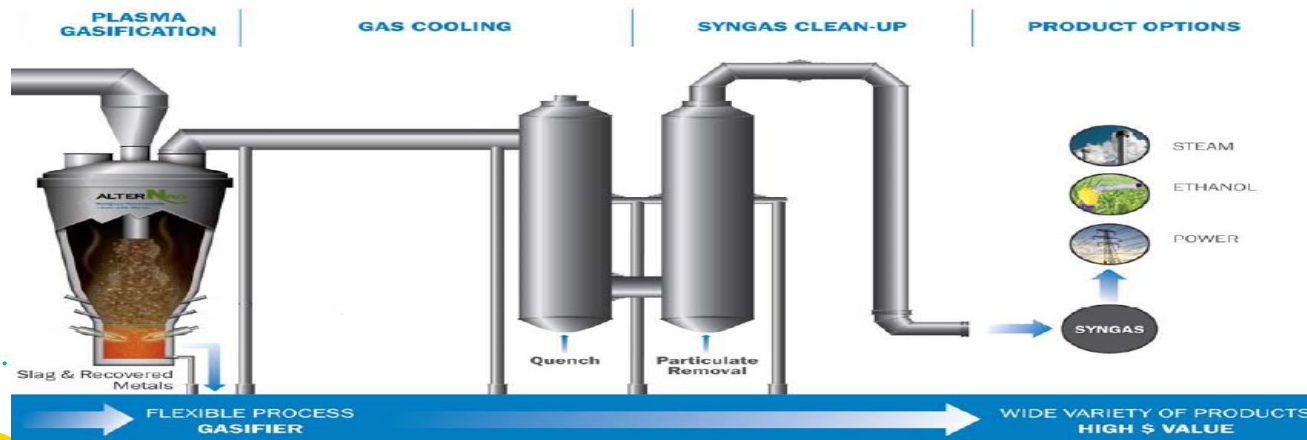
Current UK recycling rate of ~45% plus other treatments yields ~30MM tonnes of waste available

Each Tees Valley-size plant uses ~300M Waste per year, which is 1% of available waste



Advanced Gasification

- A **new combination of proven technologies**
 - Process capitalizes on Air Products' core gas handling and clean-up skills
 - Processed waste is fed into gasifier where a crude syngas is generated, cleaned and fed into gas turbines to generate power
- **Baseload** energy-from-waste complements intermittent renewables and flexible natural gas
- Highly **flexible** plasma gasification technology
 - power, steam, fuels, hydrogen, or chemicals
- Improved **environmental** profile
 - Lower CO₂ emissions per gross MWh vs. incineration and landfill
 - Inert, renewable byproduct (slag) vs. land-filled ash
 - Small potential for dioxin formation
- Higher **electrical efficiency** than incineration



Tees Valley Renewable Energy Facility

- Use **350,000 tonnes** per annum of non-recyclable waste
- Produce renewable baseload electricity (**50MW**) capable of powering ~50,000 homes safely and reliably
- Maintaining & developing skilled local employment (**700 jobs** in construction, **50 jobs** in operation)
- Large investment in the region (**£300m**)
- Under construction on a brownfield site; on-stream 2014
- Strong local support
- Positive & professional planning process



Location Location Location

- Northeast England site close to **major industrial complex**
 - available industrial zoned land
- Part of the **New Energy & Business Technology Park**
- Good access to **electrical infrastructure**
- Excellent **road links**
- Nearby **landfill**



Tees Valley Renewable Energy Facility



- Capital investment of **£300MM**
- Secured **planning permission** and **environmental permit**
- Waste feedstock supply agreement with **Impetus**
- **Power Purchase Agreement** with well-known high street chain
- **ROC agreement** with bank for renewable credit purchase
- **Announced** project go-ahead in August 2012
- **Groundbreaking** ceremony October 2012
- Anticipated **on-stream in 2014**

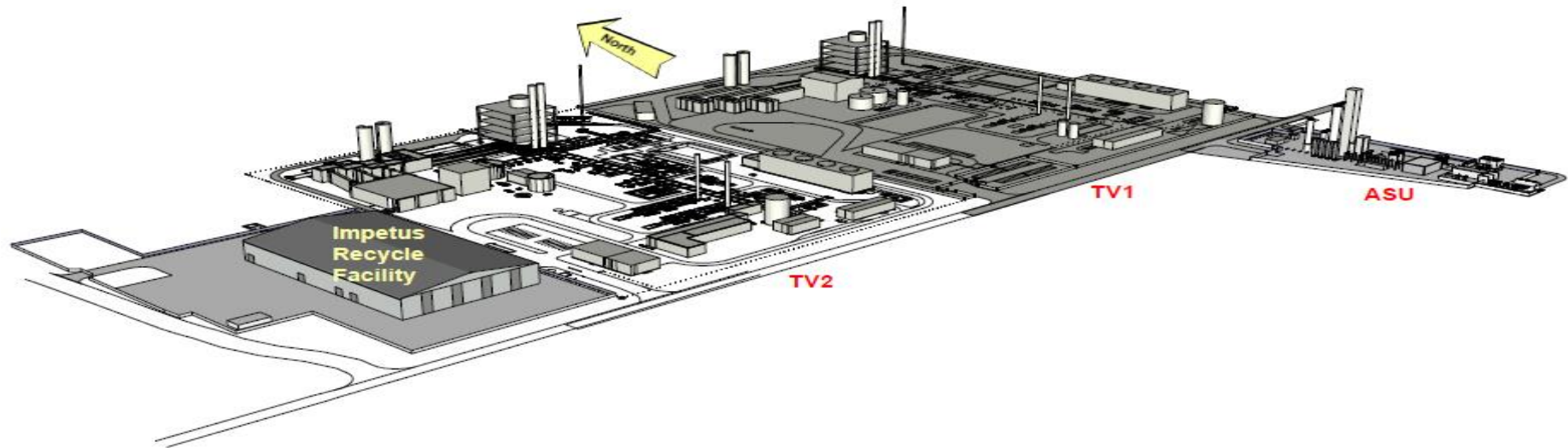
UK Vision

Advanced Gasification Solution for Waste

- Over **£1 billion** of potential new investment for up to 5 advanced gasification facilities using advanced conversion technology (ACT)
- Divert up to **1.5 million tonnes** of non-recyclable waste and convert it to renewable power
- Supply enough base-load quality power (~**250MW**) for up to 250,000 homes in the UK
- Revitalise industrialised areas as centres of advanced energy generation and skilled workforce



Tees Valley 2 Renewable Energy Facility



- Capital investment of **£300MM**
- Secured **planning permission** and applied for **environmental permit**
- Waste feedstock supply agreement with **Impetus**
- **Power Purchase Agreement** with Cabinet Office
- **ROC agreement** with bank for renewable credit purchase
- **Board approval** on 19th September 2013
- **Project kick off** October 2013
- Anticipated **on-stream in 2016**

Thank you