

# Biomethane and Landfill Gas

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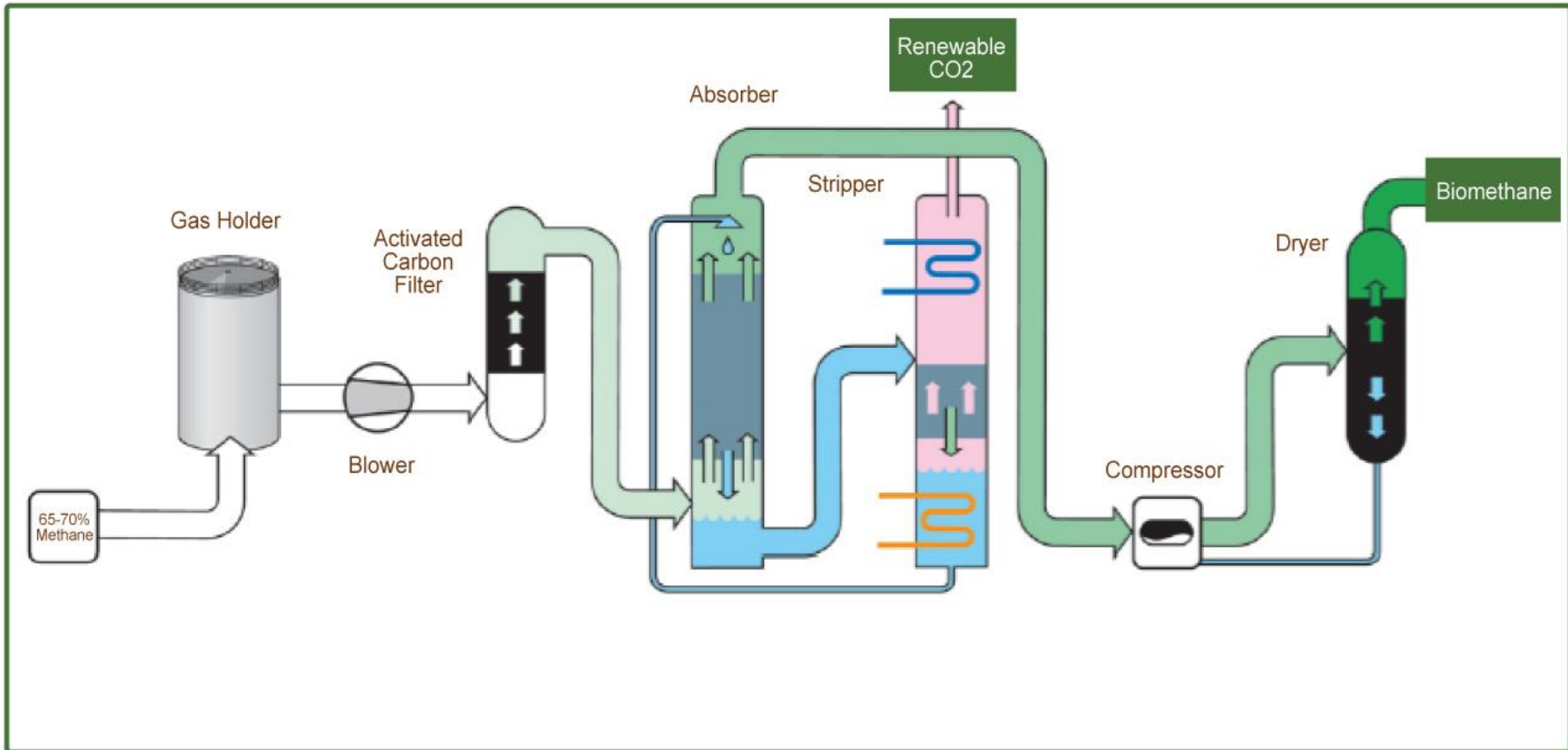


# Product Utilisation



# Biogas Upgrading

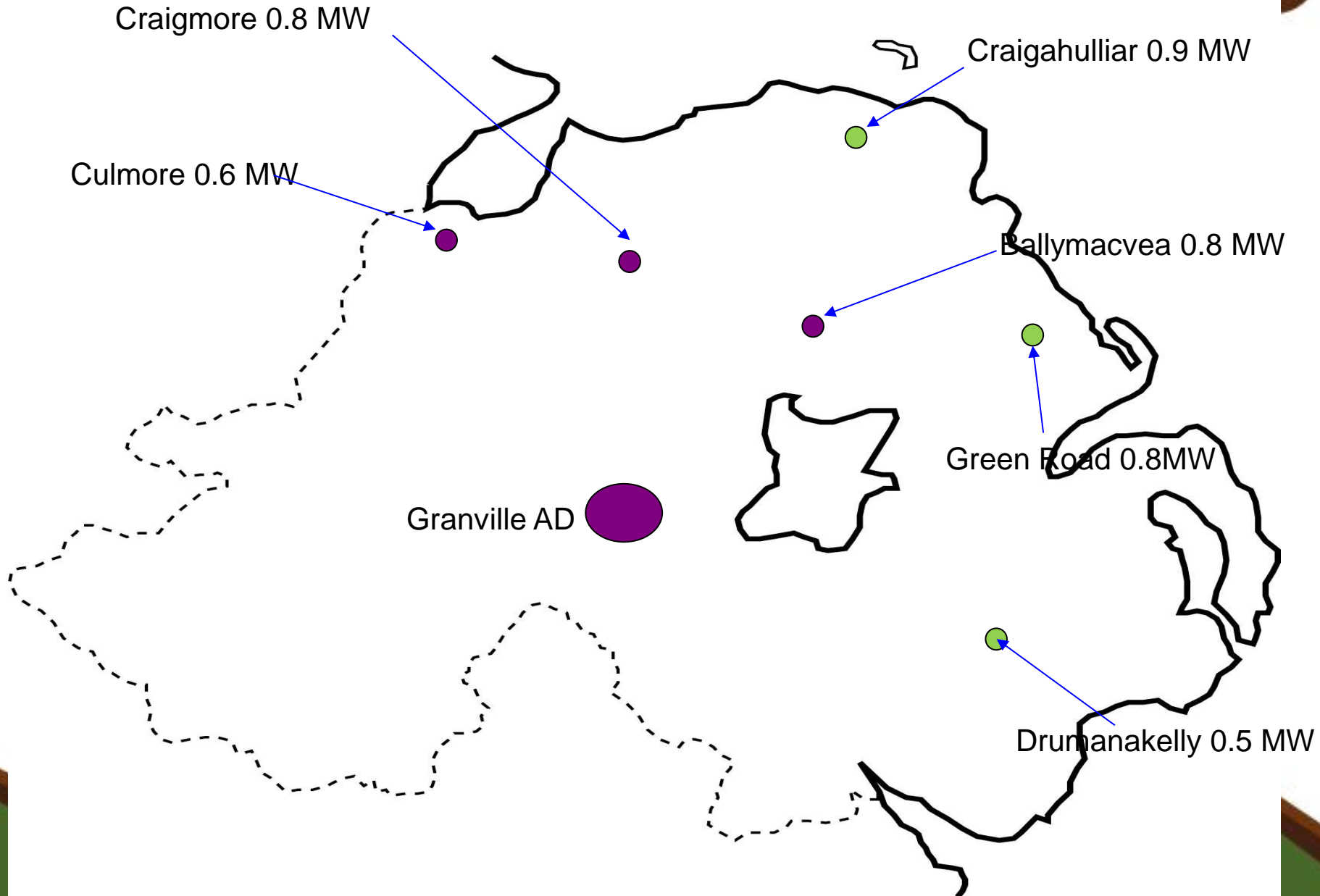
GRANVILLE  
ENERGY SUPPLY LIMITED



# Landfill Gas

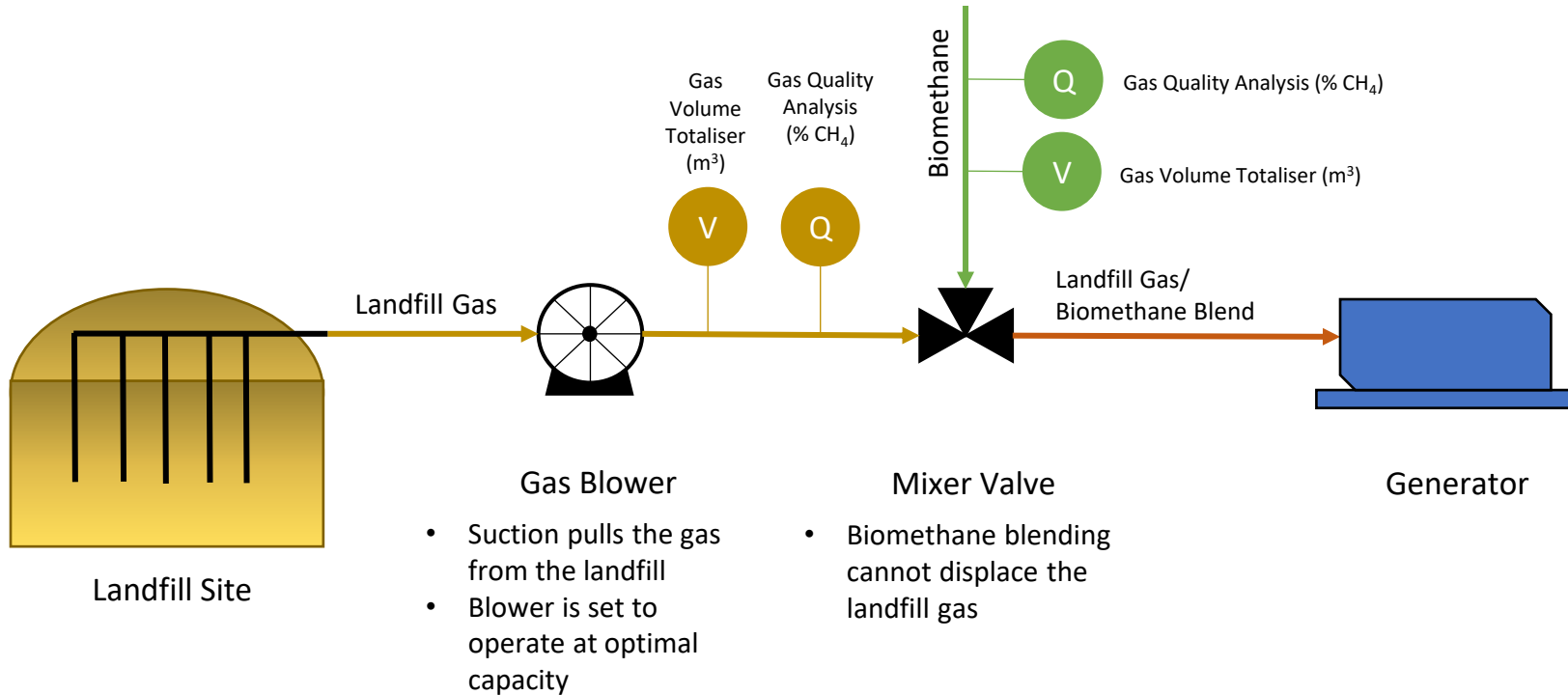


# Outline Map of Northern Ireland



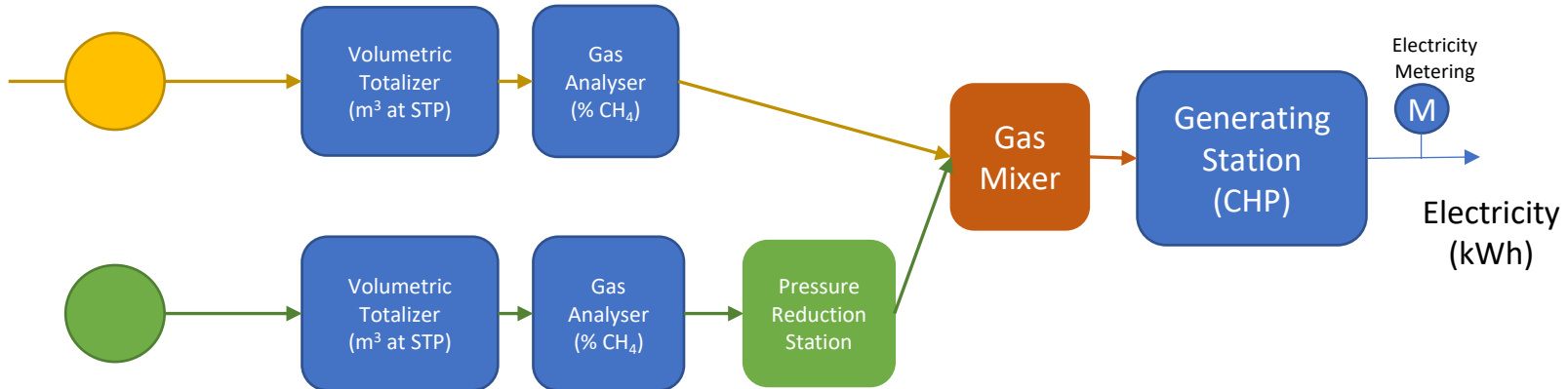


# Dual Fuel Landfill Gas and Biomethane Process Diagram



# Dual Fuel Landfill Gas and Biomethane Process Diagram

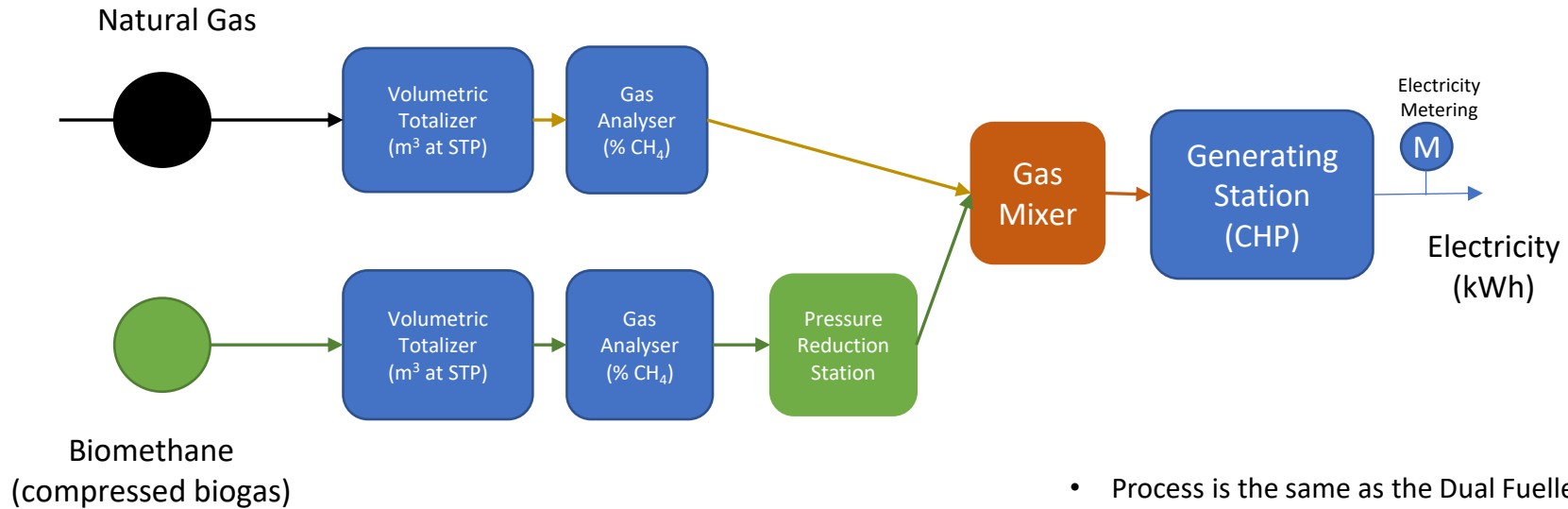
## Landfill Gas



## Biomethane (compressed biogas)

- Fuel Measurement and Sampling (FMS) Procedures list the equipment used to measure fuel qualities
  - Key parameters are:
    1. Gas Volumes
    2. Gross Calorific Value (MJ/m³)
  - This data needs to be reported monthly
  - Ofgem will only accept data obtained from the equipment specified in the FMS
- FMS requires we determine the energy content of each gas. Calculated by volume and gross calorific value (GCV)
  - Data needs reported at Standard Temperature and Pressure (STP) reference conditions (288.15K and 101,325Pa)
  - Accuracy, frequency of measurement also need to be provided

# Dual Fuel Natural Gas and Biomethane Process Diagram



- Process is the same as the Dual Fuelled Sites using Landfill Gas and Biomethane
- Fuel Measurement and Sampling (FMS) Procedures list the equipment used to measure fuel qualities
- Key parameters are:
  1. Gas Volumes
  2. Gross Calorific Value (MJ/m³)



# Renewables Obligation and Dual Fuelling

- The Renewables Obligation closed to new capacity on 31<sup>st</sup> March 2017
- Applications for new projects needed to be submitted prior to 31<sup>st</sup> March 2017 and the generating station commissioned.
- Landfill gas projects accredited for NIROCs could potentially apply to dual fuel with biogas/biomethane after the closure date as the generating station is already commissioned and the application approved.
- The existing application is modified to change the technology reference from Landfill gas (NIRO code = NJ) to Fuel Burning (NIRO code = NA)
- ROCs will only be issued on the biogas/biomethane portion of generation up to the 20-year anniversary of the original commissioning date
- In most cases, ROCs can only be issued to each generating station/additional capacity for a period of 20 years.
- The 20-year period ends on the 20th anniversary of the accreditation date of a generating station (or the commissioning date of the additional capacity), subject to the 31 March 2037 cut-off. This applies even if the generator does not claim ROCs, or becomes ineligible to claim ROCs, for a particular period.

# Biomethane for Vehicle Fuel



Granville Ecopark have available Biomethane for Commercial use a Vehicle Fuel

# Challenges for Biomethane

- Refuelling Infrastructure
- Vehicle Availability
- Adoption of CNG Vehicles in NI



# Contact Details



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