

# The Contribution of Sustainable Biomass to Ireland's Renewable Targets

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# Ireland's Targets 2020 – 2050

## 2020

Target of total energy  
16% renewable, end of  
2017 value of 10.6%

RES-E 40% target  
2017 – 30.1%

RES-H 12% target  
2017 – 6.8%

RES-T 10% target  
2017 – 7.4%

GHG – 20%  
versus 2005 emissions

## 2030

New **‘Green Deal’** sees  
ambition increased

GHG reductions, relative  
to 2005 levels, from 43%  
and 30% for the ETS  
and non-ETS sector to  
an overall reduction of  
between 50-55%

## 2050

The EU will be  
climate neutral

## POWER SECTOR IN IRELAND

**70%**  
**Renewable**  
**by 2030**



# EPL Contribution

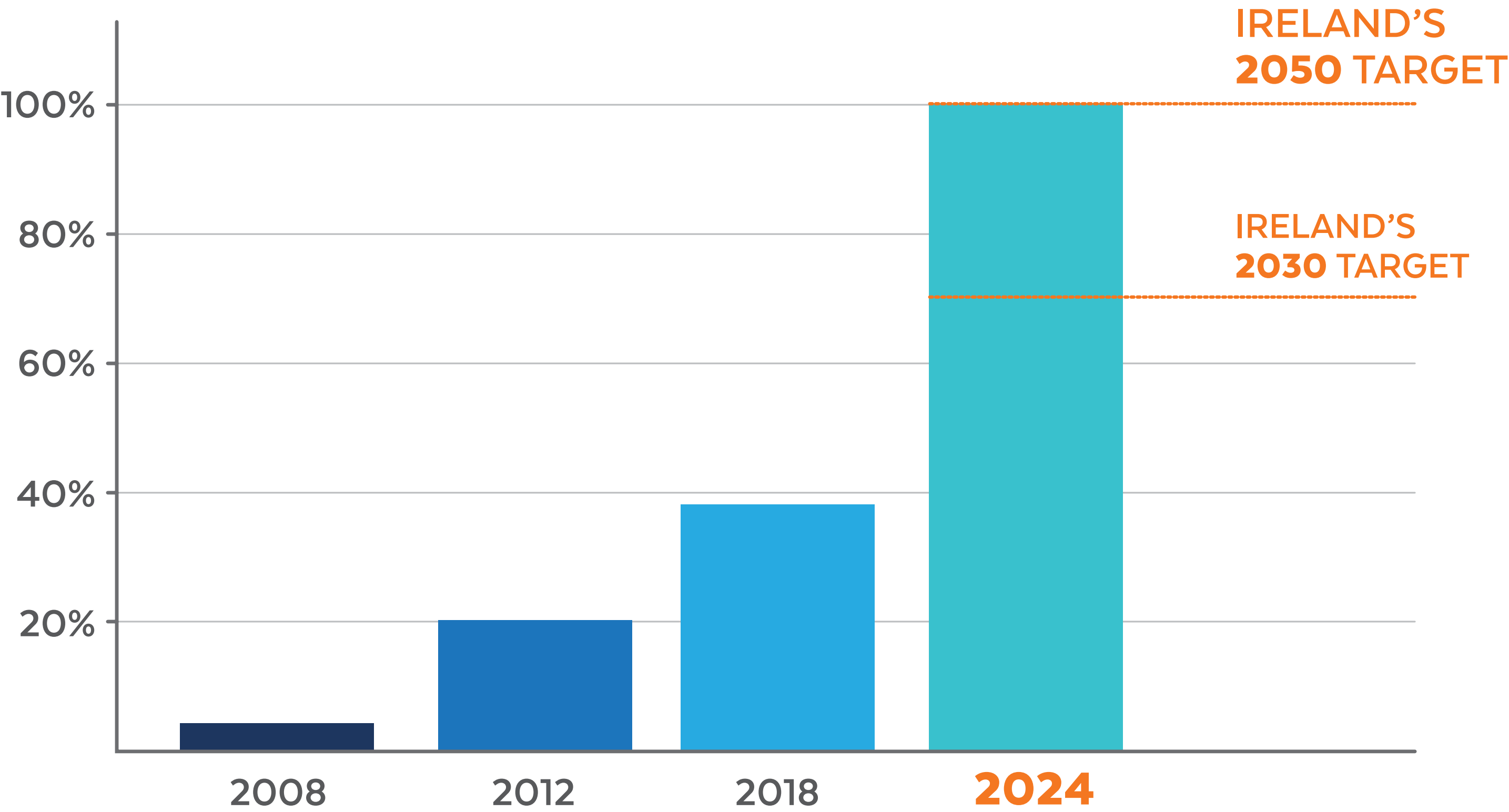


- Intention to have EPL 100% RES-E by 2024
- 80% of the biomass indigenously sourced
- Indigenous biomass leveraged from the increase in forestry production
  - Particularly, forest residues and non-productive timber
- EPL is currently the largest **on-demand renewable asset on the power system**
  - Importance (via its inertia) will increase with increasing penetration of wind and solar

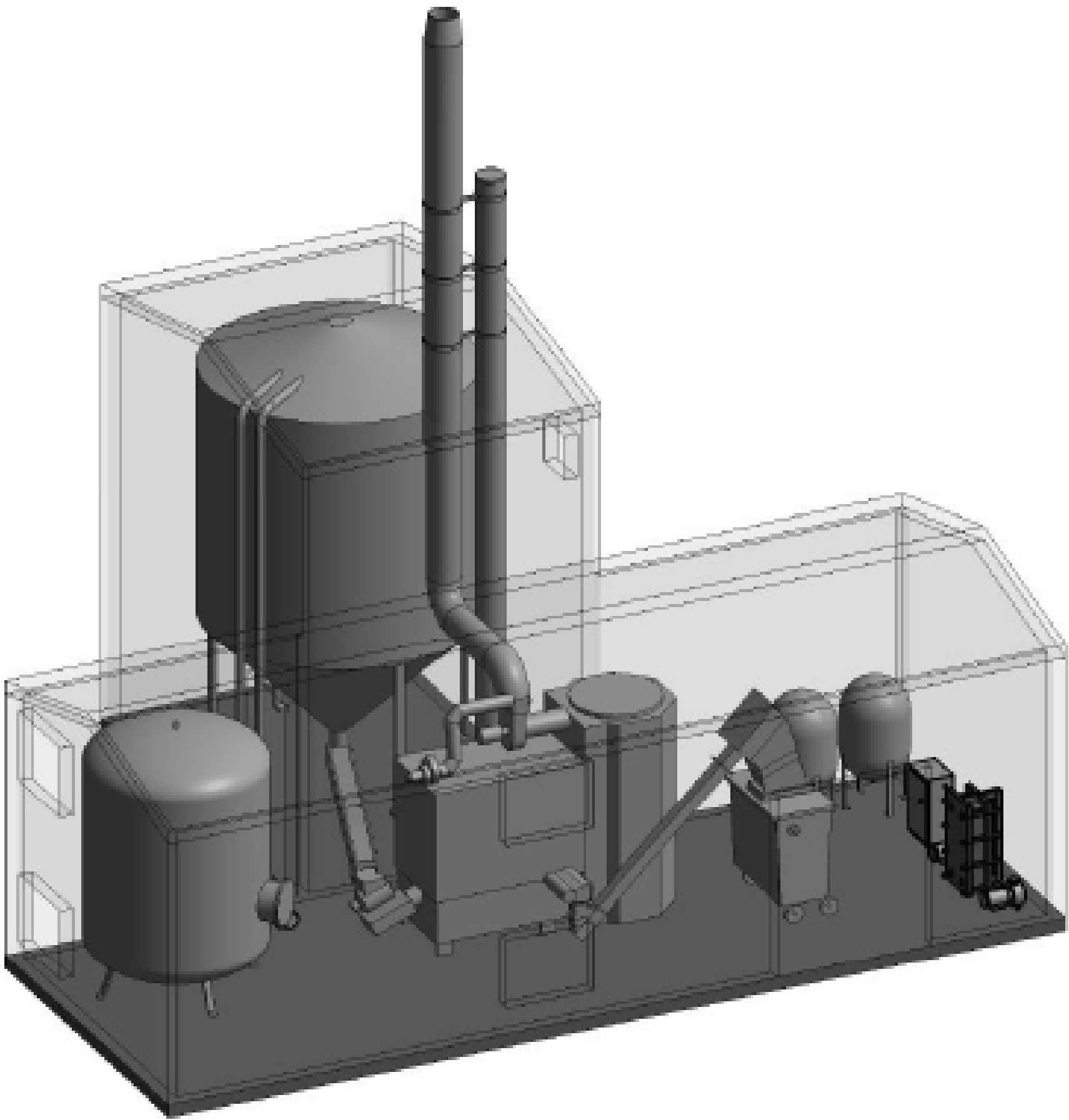
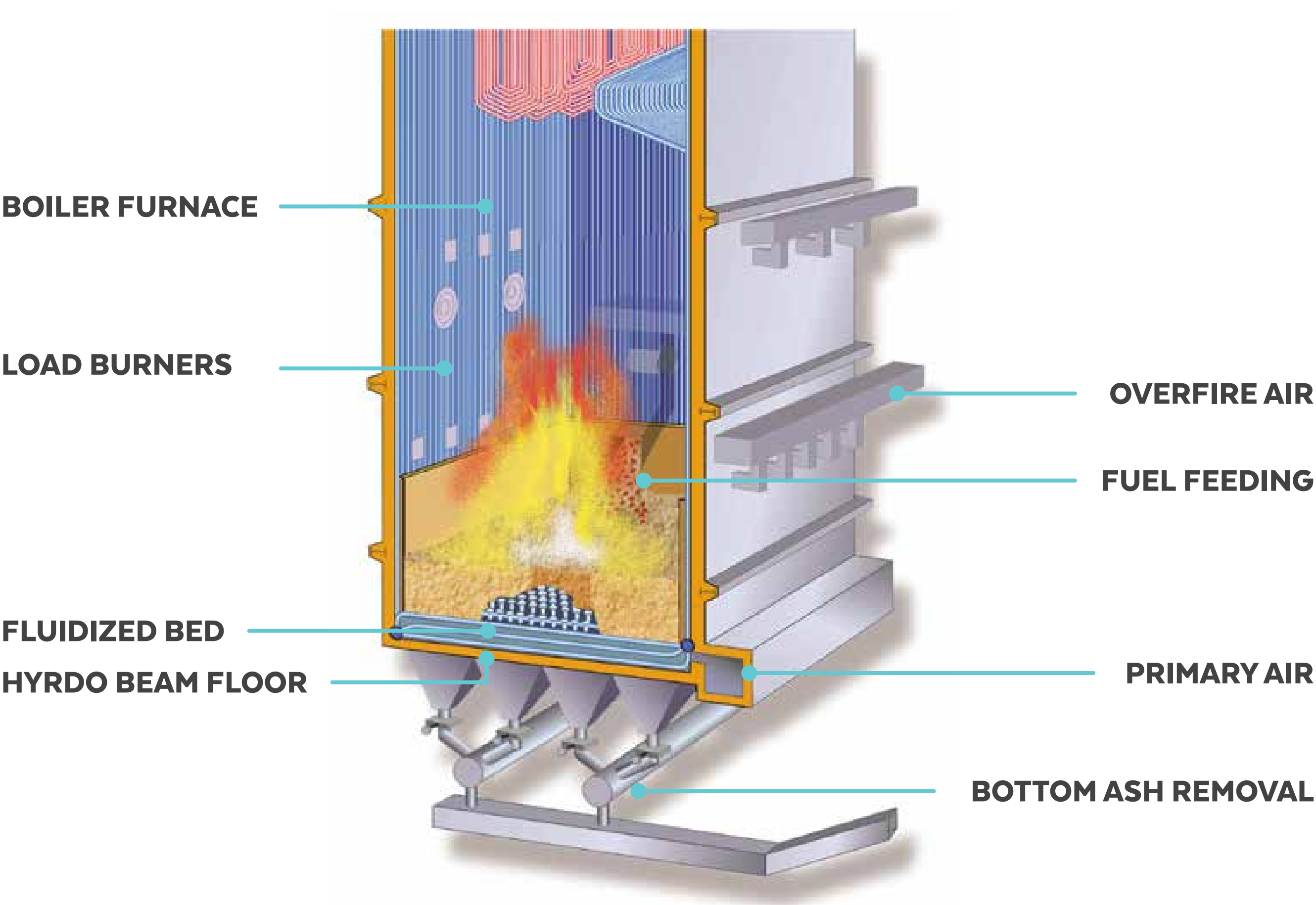


# EPL Contribution

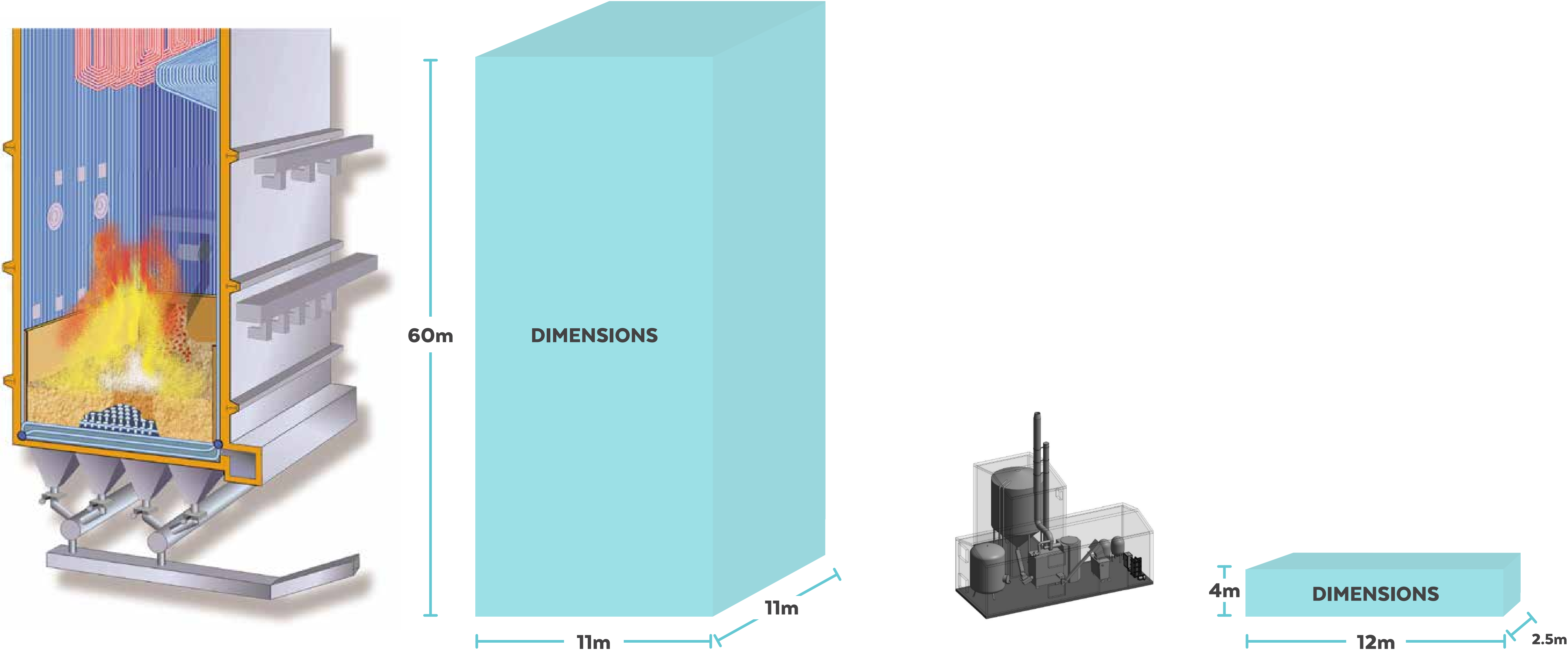
% Renewable Electricity at Edenderry Power



# EPL in Perspective

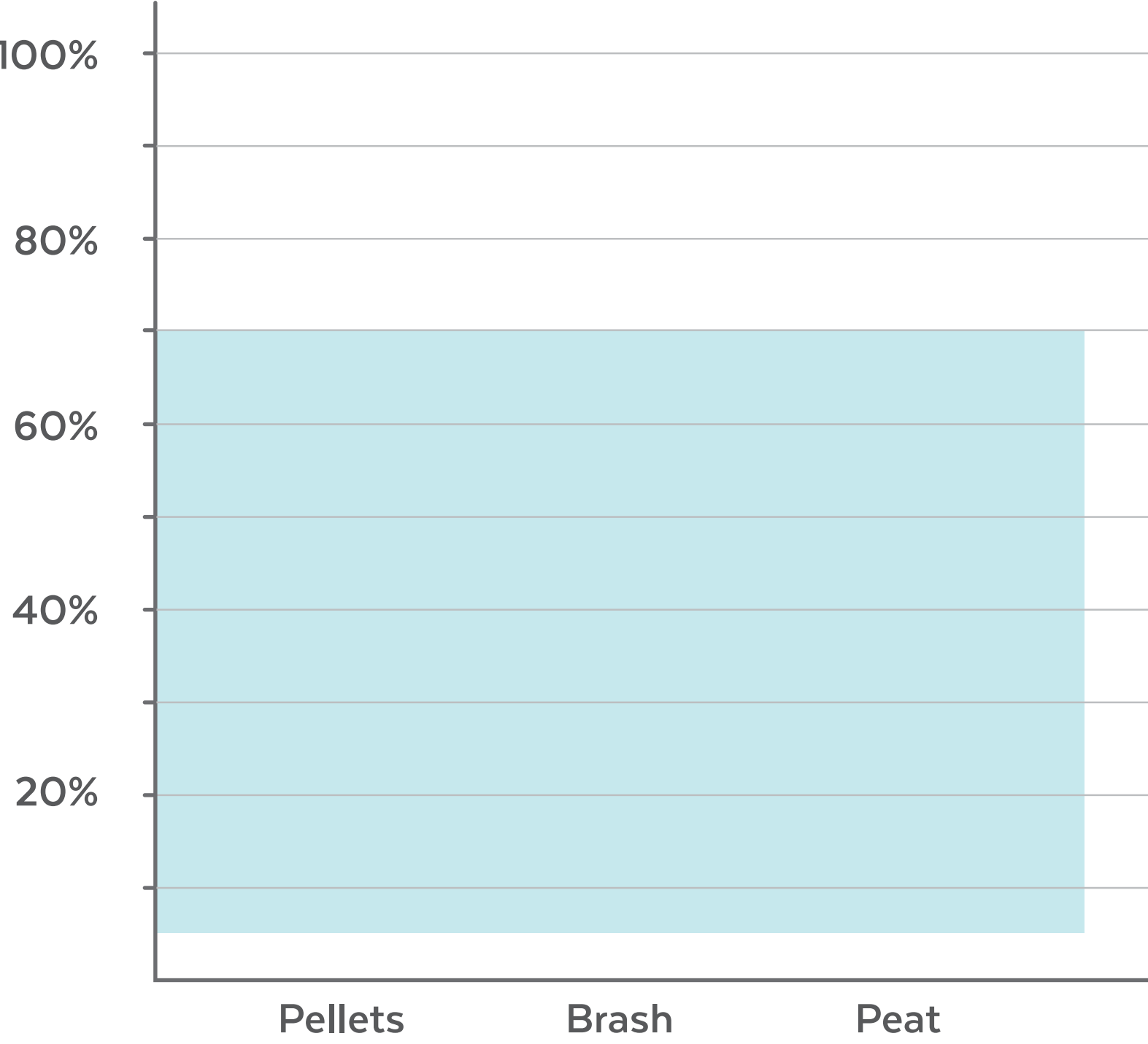


# EPL in Comparison

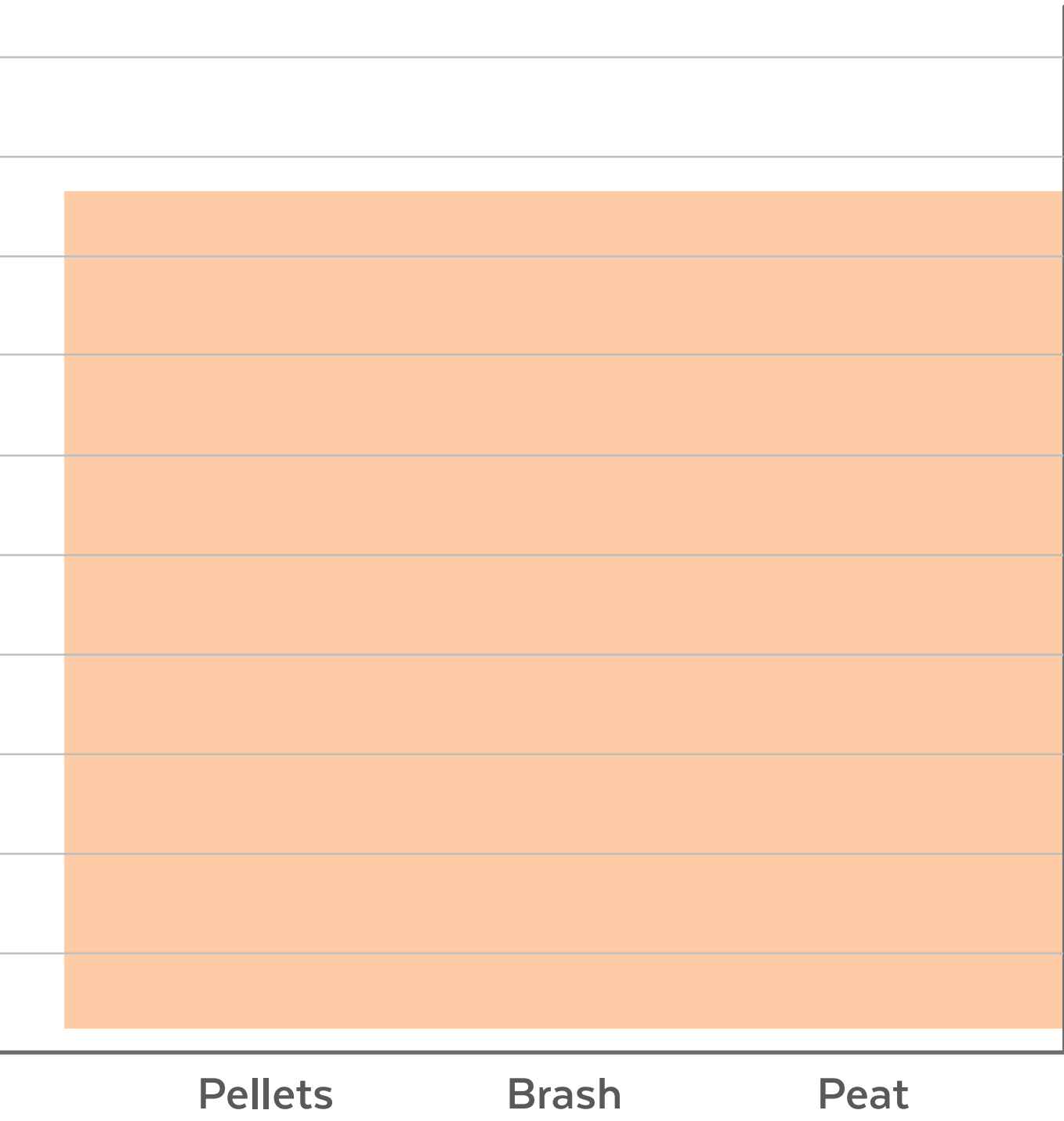


# EPL Fuel Tolerances

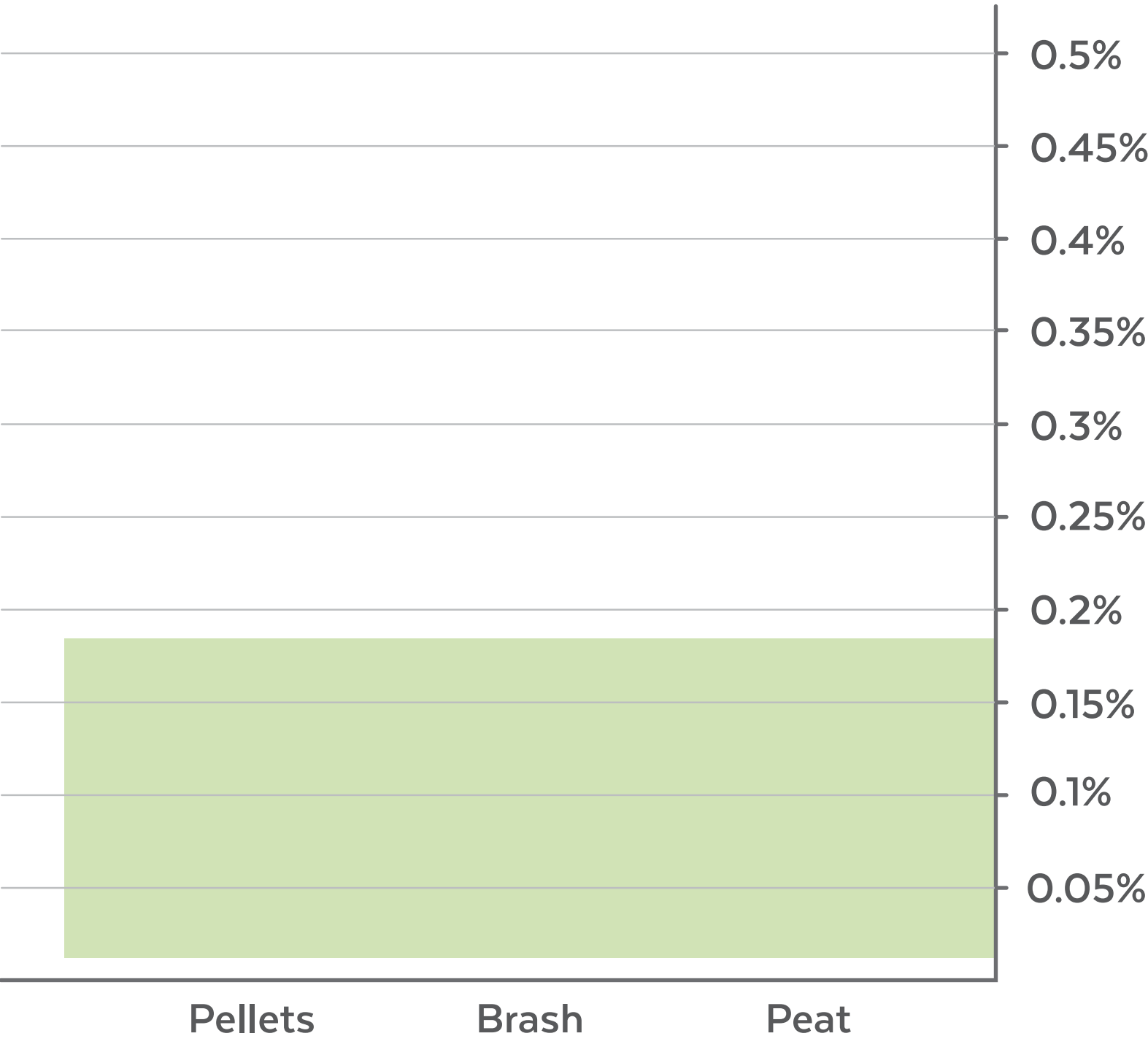
% MOISTURE



% SULPHUR

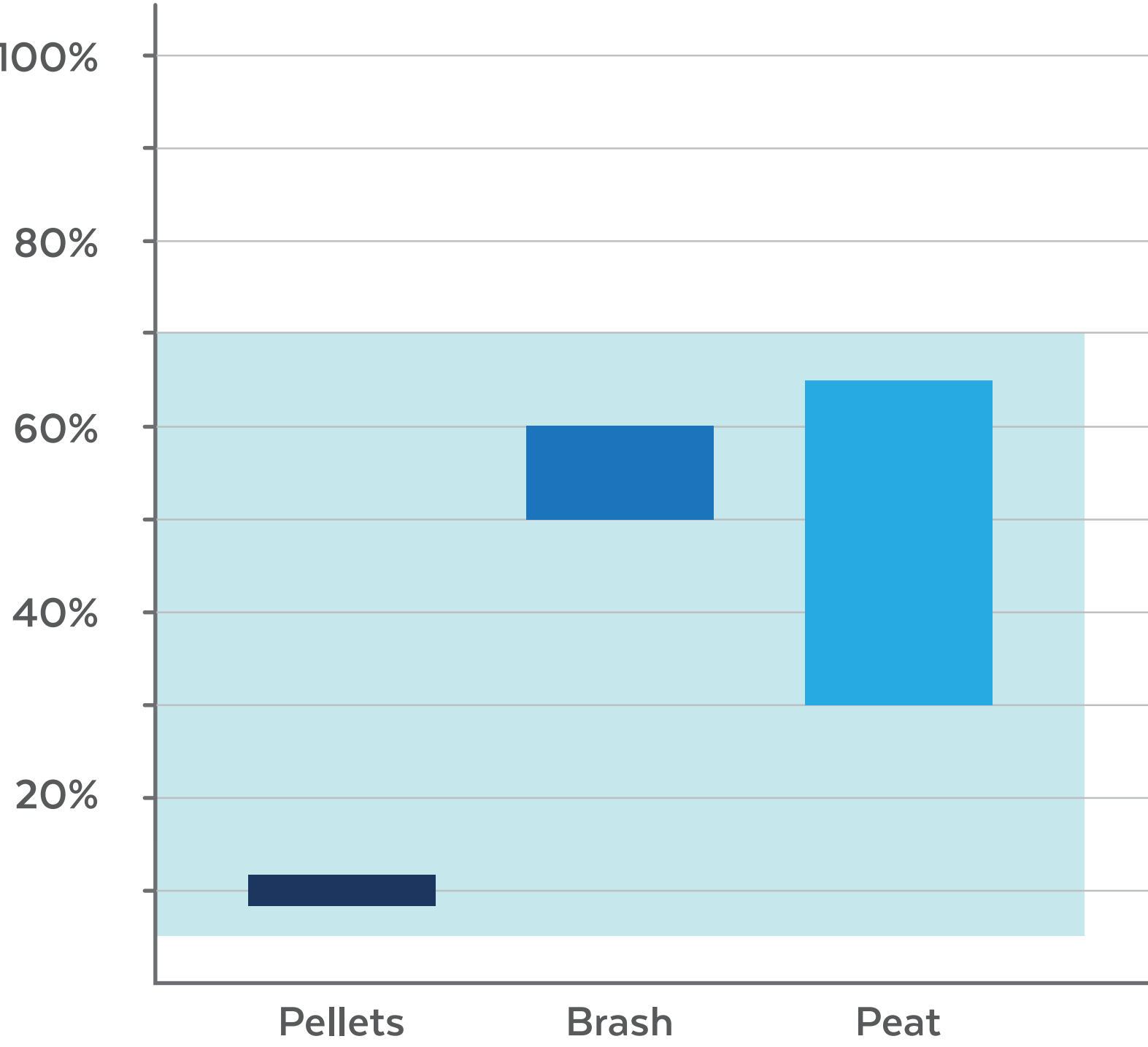


% CHLORINE

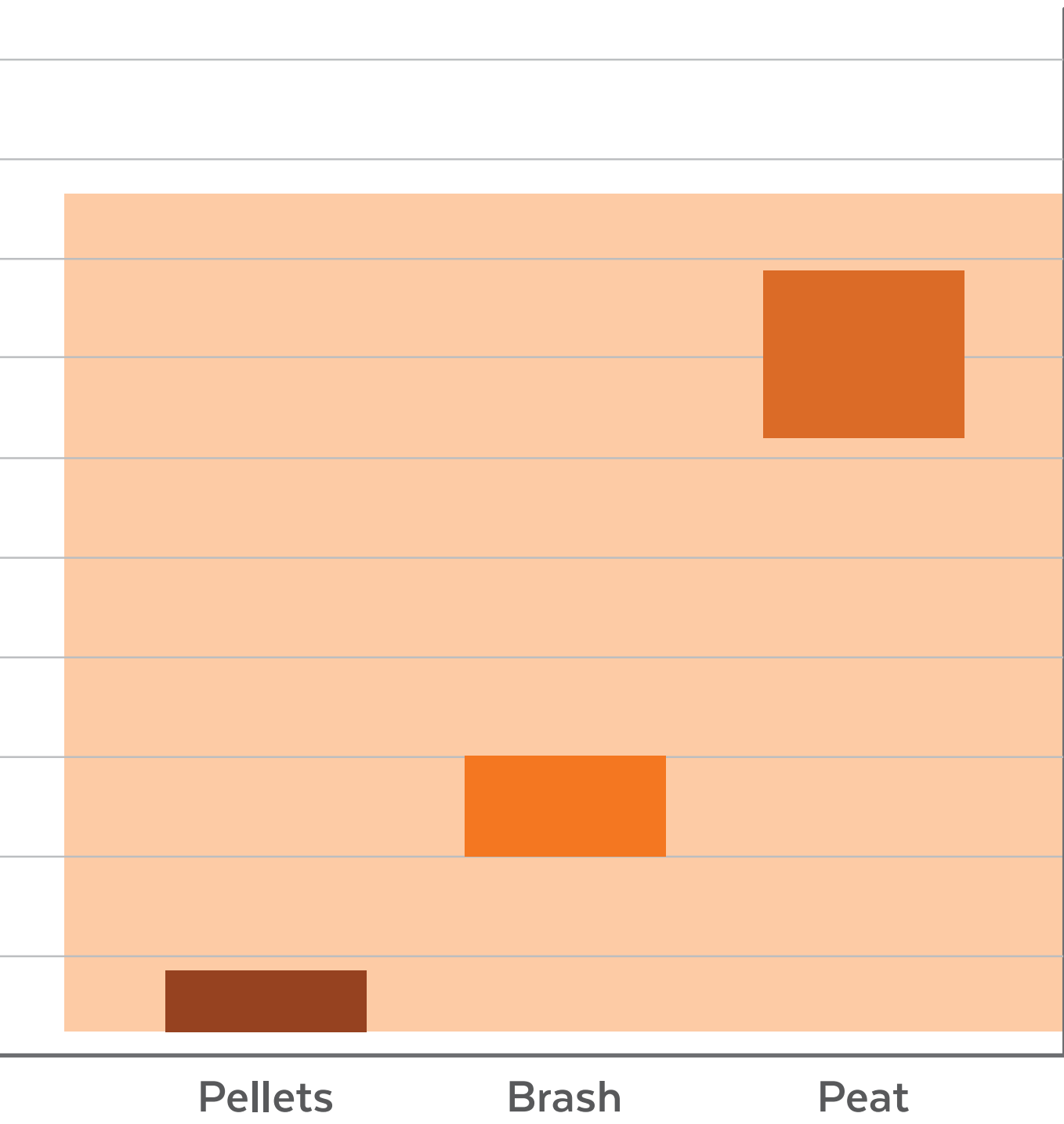


# EPL Fuel Tolerances

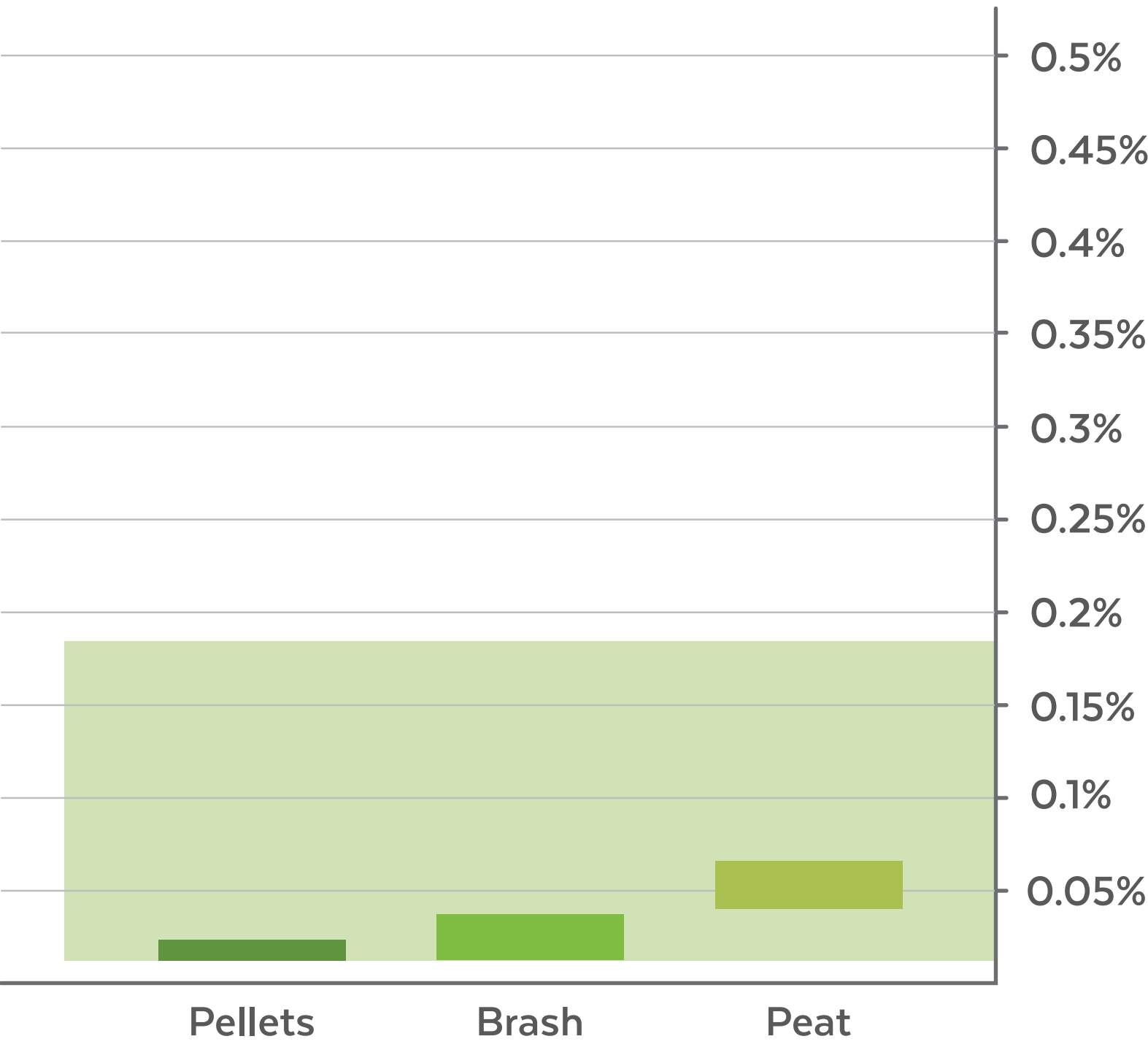
% MOISTURE



% SULPHUR



% CHLORINE



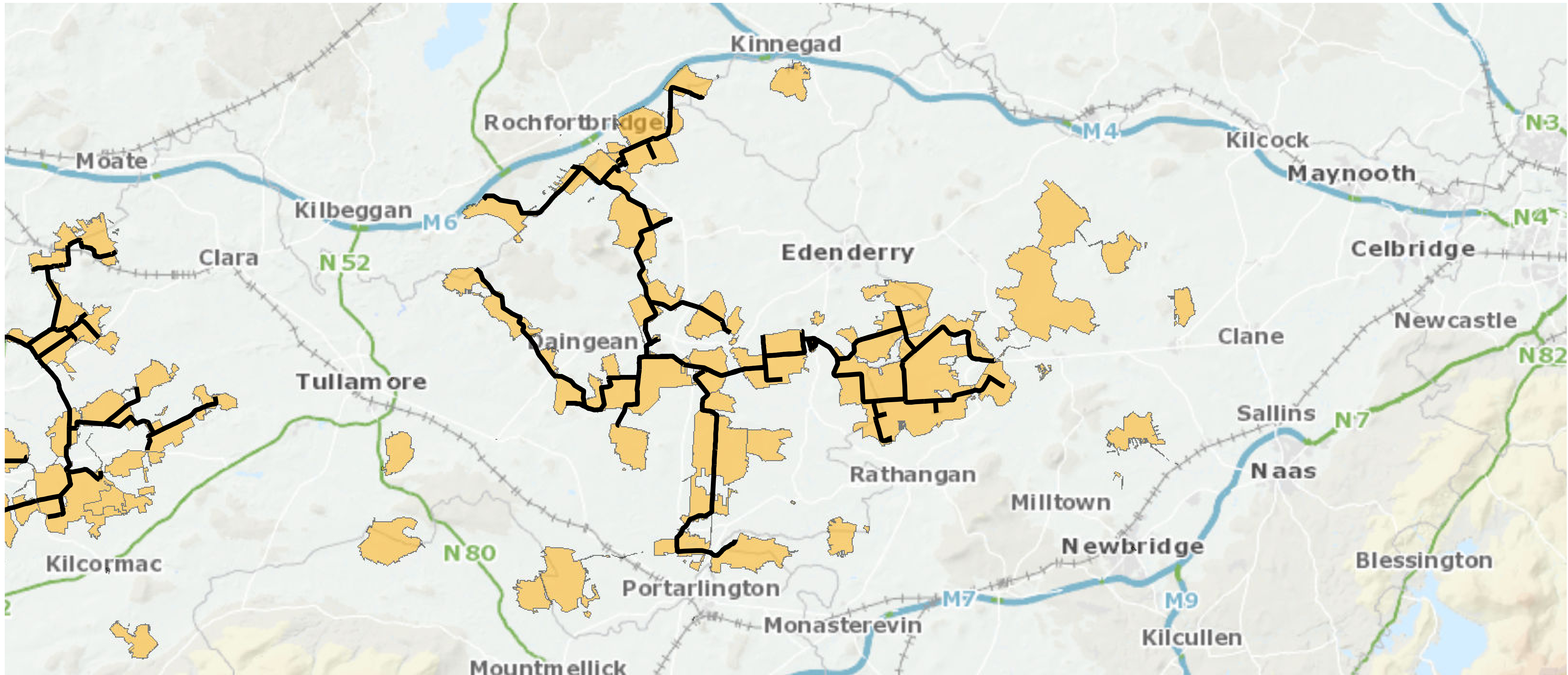


# EPL Advantages

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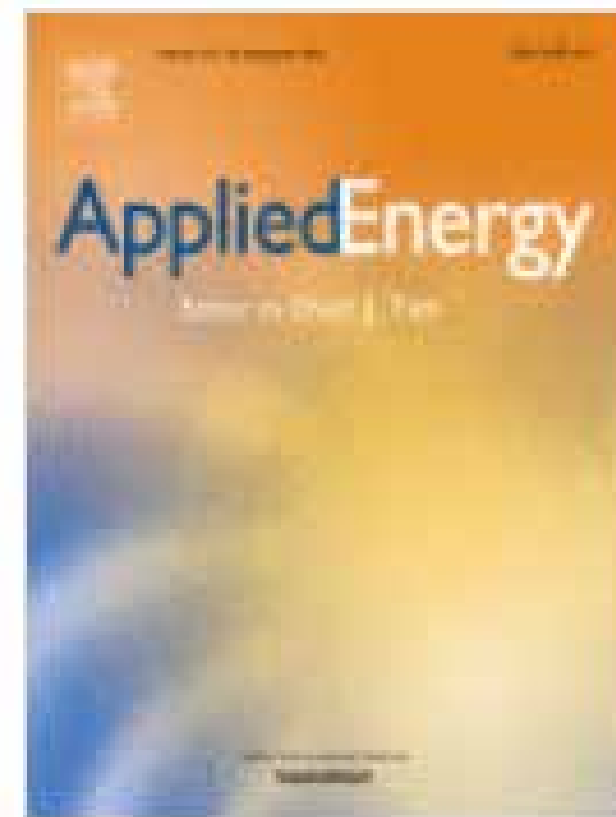
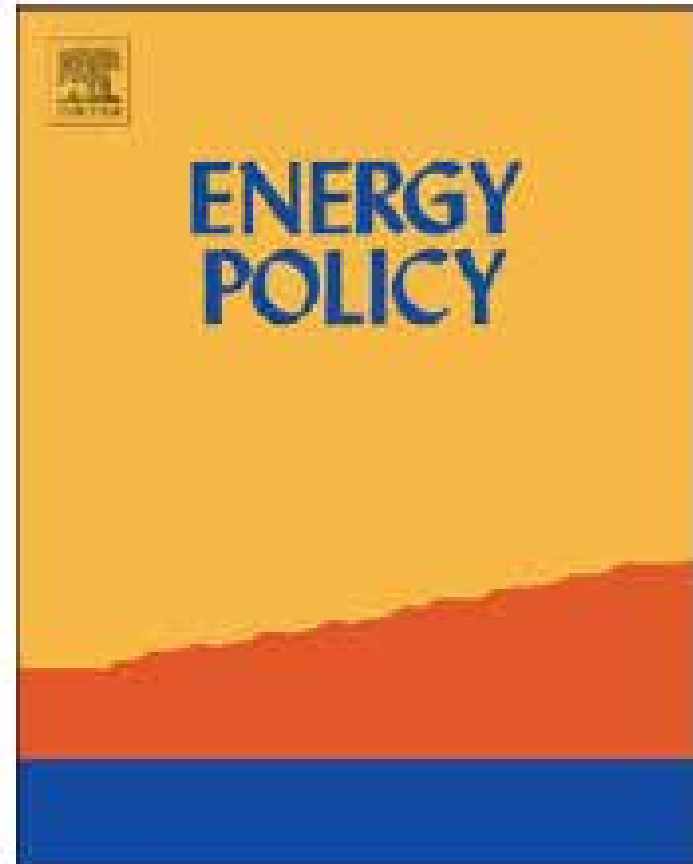
- Potential for circa 800k MWh pa **‘on-demand’** renewable power
- EPL capex is sunk – little or no capex required to transition to 100% by 2024
- No new grid infrastructure required
- Strong growth forecasts for forestry and forest products (including ‘residues’) in the next decade
- EPL’s tolerance for ‘residues’ greater than typical use of the term, minimal ‘refining’ required
- EPL focused on the **‘offal’** leaving the **‘fillet’** to other sectors

# Transition





# Policy ECONOMIC DIVERSIFICATION



“ The results of the scenario analysis indicate that an increase in the bioenergy share of the total electricity generation will stimulate the bioenergy market for bio-power.”

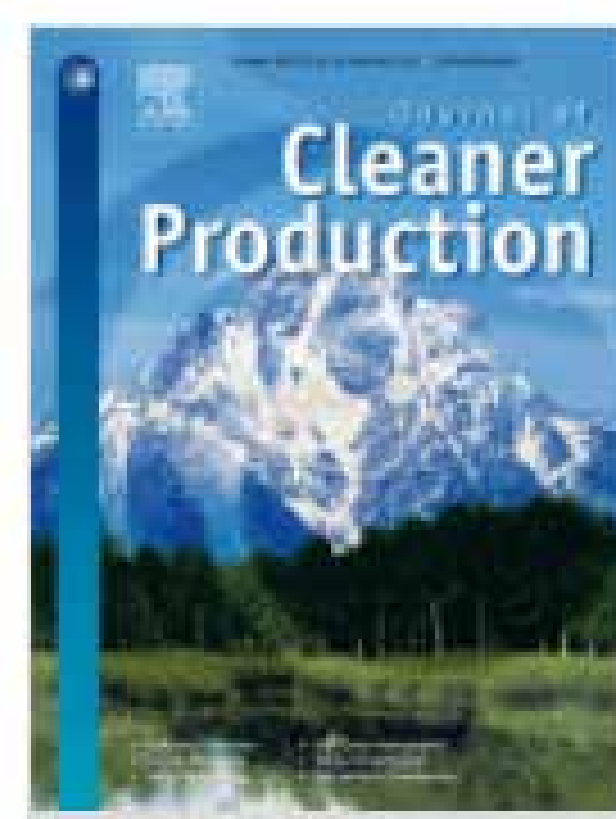
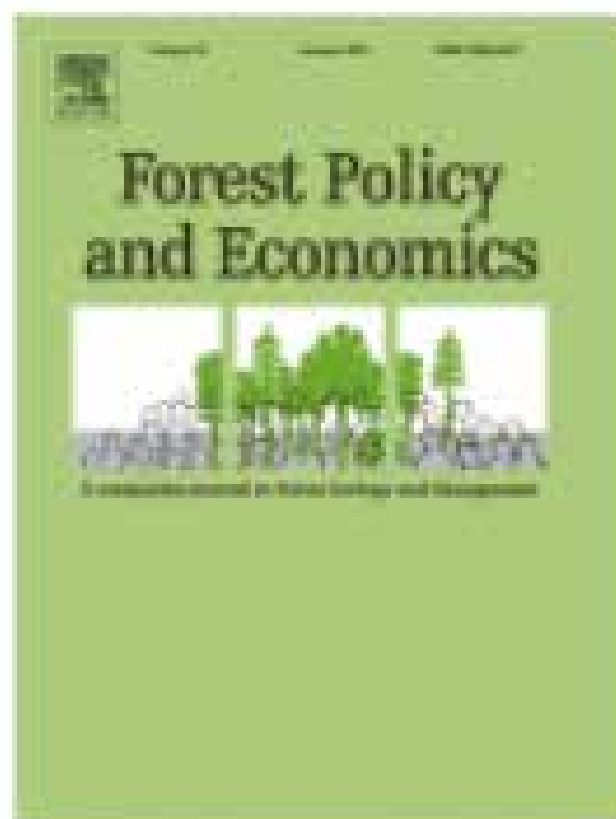
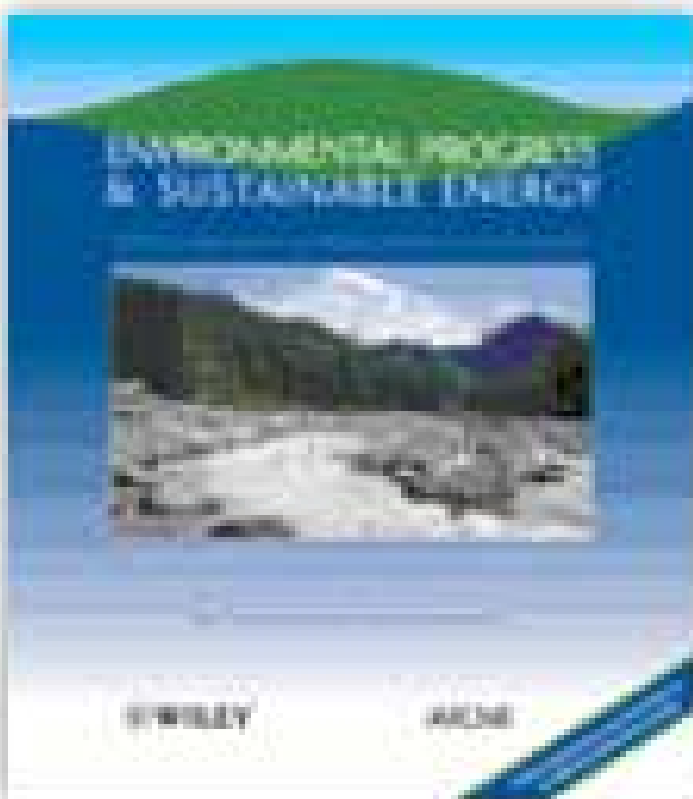
**Sutherland et al., Biomass & Bioenergy 119,2018, pp10**

The potential rural development impacts of utilizing non-merchantable forest biomass – “potential for investment in depots to aid rural communities”

**Crandall et al., Forest Policy & Economics, 74,2017,pp 20-29**

“ There is a positive correlation between the potential to generate high impact jobs in the region and its potential to generate greenhouse gas emission savings.”

**Cambero et al., Applied Energy 178, 2016, pp721**



# Conclusion



Edenderry Power intends to supply

**100%**

**RENEWABLE  
ENERGY BY 2024**

25 years ahead of policy target.



**80%**

of Edenderry Power's  
Biomass is supplied by

**IRISH SUPPLIERS**

Intention to leverage the increase in forestry production and  
focused on forest residues and non-productive timber

Wider socio-economic and 'Just Transition' benefits



Edenderry Power is Ireland's  
largest supplier of

**ON DEMAND  
RENEWABLE  
ENERGY**

Evidence to suggest that EPL as a baseload 'off-taker' will  
deepen and widen the bioenergy market in Ireland