



Tilbury Green Power
**Social Value
Strategy**

tilbury
greenpower



Contents

- 04 *Who are we*
- 06 *Baseline Carbon Emissions*
- 08 *Our Strategy*
- 10 *Our Approach and Philosophy*
- 12 *Vision and Principles*
- 14 *Areas of Influence*
- 16 *Our Themes*
- 18 *Key Activities*
- 21 *Enablers*
- 23 *TGP Operations Infographic*
- 24 *Appendix: Strategy on a Page Infographic*
- 25 *Appendix: Carbon Baseline*







Who are we?

Tilbury Green Power is one of the largest waste wood biomass plants by generation capacity in the UK and plays a valuable role in the UK meeting its targets for climate change and a low carbon economy, in particular energy production from renewable sources.

Tilbury Green Power (TGP) is a renewable energy power station powered by waste wood. It is located in the Port of Tilbury and has been operational since 2019. It generates over 40 MW of reliable, base load low-carbon electricity which is exported to the local electricity network.



To generate electricity, TGP utilises low quality, post-consumer, waste wood biomass sourced from demolition sites and household waste recycling facilities. All waste wood is from the UK with the majority from the South East of England. Without energy recovery via electricity generation at TGP, the only other potential destination for this material is landfill.



As a result of operations at TGP, around 275,000 tonnes of waste wood is diverted from landfill every year. In receiving, sorting and preparing the waste wood into a fuel for electricity generation, ferrous and non-ferrous metals are also recovered and recycled.

The prepared waste wood fuel is used to produce steam in a boiler and drive a steam turbine to generate electricity which is then exported to the local distribution network. TGP generates enough electricity to power over 100,000 households every year.

As a result of diverting waste from landfill and generating electricity, TGP helps to prevent over 300,000 tonnes of fossil-based carbon dioxide emissions from entering the atmosphere every year.

The operations at TGP actively contribute to preventing the release of carbon dioxide emissions, supporting a low carbon economy and the pathway to net zero. The operations are illustrated by the infographic provided as an Appendix.

In 2024, TGP will enter its sixth year of operations and is seeking to do more. TGP is committed to maximising the local and regional benefits of the Plant through establishing a Social Value Strategy. This Social Value Strategy will focus on delivering positive, lasting change for our workforce, local community, environment and young people.



Baseline Carbon Emissions

Minimise our carbon emissions and maximise the environmental benefits of our operations.

TGP recognises that reducing the use of fossil fuels and the release of fossil based carbon dioxide emissions to atmosphere is critical in addressing climate change.

TGP provides two key operational functions:

1. Diversion of biodegradable waste wood from landfill; and
2. Generation of low-carbon, baseload electricity.

Preventing biodegradable waste wood from going to landfill prevents methane, a potent greenhouse gas, from entering the atmosphere. Generating electricity contributes to displacing the requirement for marginal power generation from carbon based fuels such as natural gas.

Through this Social Value Strategy, we will aim to minimise the direct emissions of fossil based carbon dioxide from our operations as much as reasonably practicable whilst also improving the overall environmental benefits of our operations. Where possible, TGP will also seek to reduce carbon dioxide emissions in the local community through supporting energy efficiency improvement schemes.

2023 Baseline*

In 2023, TGP delivered a net carbon benefit to the local community of avoiding 347,598 tonnes of CO₂e¹ from entering the atmosphere.

This equates to a net benefit of 1.46 tonnes of CO₂e per tonne of waste wood processed and converted to electricity.

*detailed analysis provided in appendix
¹Carbon Dioxide Equivalent





Our Strategy

Our Social Value Strategy

Social Value is the systemic change created within communities that leads to improved quality of life.

It is closely linked with terms such as social justice and social equity. It considers impacts across generations, communities, socio-economic groups and geographies and is linked to the United Nations (UN) Sustainable Development Goals (SDGs). Social Value is about people and the role that environmental, economic and social factors have in influencing their lives.

This Strategy provides a framework for Social Value for the next 15 years which has been designed in response to a Local Needs Analysis and stakeholder engagement carried out in 2023. Whilst this Strategy is intended to cover the next 15 years, a review will be undertaken every 5 years to ensure the Social Value Strategy meets the evolving business and community needs.

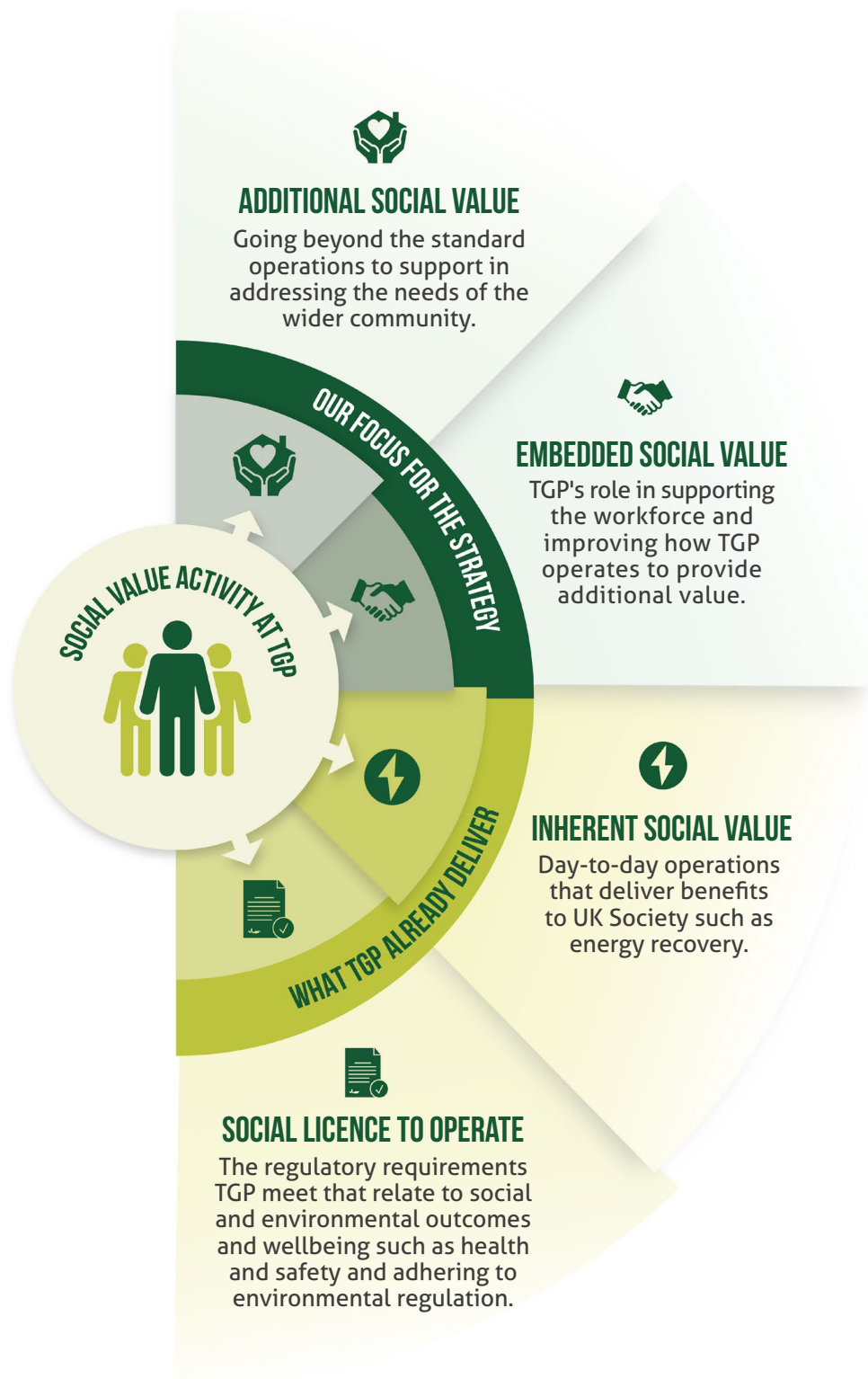
At TGP we want to be an agent of change for our workforce, local environment, community and young people. We will do this by embedding Social Value in our operations to deliver sustainable impact in our local area.



Our Approach & Philosophy

TGP Philosophy

Our Social Value activity at TGP will go beyond the boundary and operations of our site, embedding and delivering additional Social Value for the wider community and our workforce.



Our Approach & Philosophy

Our approach to creating the Strategy

The work TGP has undertaken in developing this Strategy includes:

1. A review of the national, regional and local policy context to align the TGP Social Value Strategy to wider objectives;
2. Engagement with key internal and external stakeholders; and
3. A Local Needs Analysis to understand the challenges and opportunities in the local area that the TGP Social Value Strategy can respond to.

These steps identified Skills and Education, Employment, Health and Wellbeing, and the Local Living Environment as relevant local priorities that TGP can help address with young people and our workforce as priority target groups.

We will continually engage with our workforce and our community through a workforce committee and existing local community groups and stakeholders. An action plan setting out a programme of activities for the next 12 months has been developed.



Vision & Principles

At TGP we want to support and create a better future for our local community by maximising the positive opportunities available as a result of our operations.



OUR GUIDING PRINCIPLES ARE:



To address community needs



To partner with our workforce and community to co-create and deliver on shared visions and objectives



To be sustainable, flexible and long-term



To monitor, evaluate and continuously improve

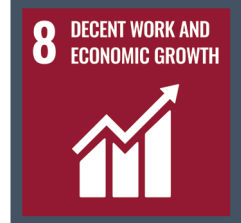
Vision & Principles

Our Social Value Strategy is underpinned by the United Nations Sustainable Development Goals (UN SDGs) - these address global challenges including poverty, climate change, inequality and justice.

By embedding Social Value principles and creating a conscious business, aligned with the UN SDGs, we can have a positive impact supporting sustainable development and a just transition that benefits people and place.

TGP is committed to adopting the UN SDGs as recognised best practice in relation to sustainable finance practices aligning itself with the objectives of its shareholders.

This Social Value Strategy aligns with the following UN SDGs which are referenced throughout this Strategy.



TGP Social Value Strategy UN SDGs

Areas of Influence

















We recognise that the impact of our operations extends beyond our site.

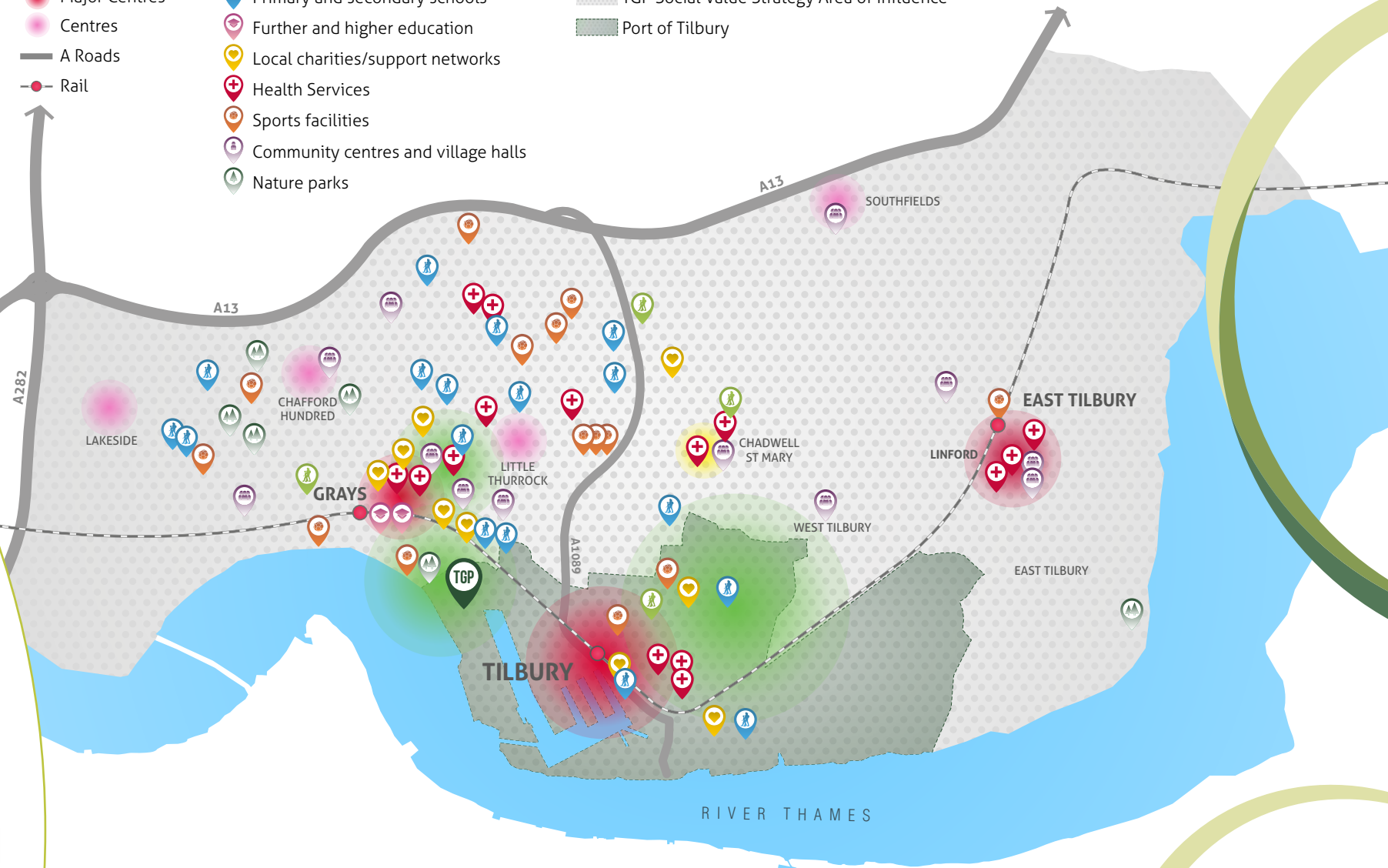
We also recognise the opportunities that can be created for the local community and wider Tilbury area that respond to local needs through our Social Value Strategy. We will identify local partners and key community assets that TGP could support and build on in order to deliver our Social Value Strategy.



Area of Influence and Community Assets

Key

-  Green Areas
-  Major Centres
-  Centres
-  A Roads
-  Rail
-  Children's centre and Nurseries
-  Primary and secondary schools
-  Further and higher education
-  Local charities/support networks
-  Health Services
-  Sports facilities
-  Community centres and village halls
-  Nature parks
-  Tilbury Green Power
-  TGP Social Value Strategy Area of Influence
-  Port of Tilbury



Our Themes

Our Social Value investment in our workforce, local community, environment, and young people focuses on three strategic themes.

The themes have been determined through the policy review, Local Needs Analysis and stakeholder engagement based on policy objectives, local challenges and opportunities and what TGP can help address.

Within each theme we have identified key cross-cutting activities we will undertake that are critical to addressing the key challenges and meeting the vision and principles of this strategy. Please see the Appendix for the Strategy on a page and the outcomes we are wanting to achieve within each theme.



Inspiring young people and delivering quality employment.



Promoting wellbeing in the workplace and community.



Supporting environmental sustainability.



INSPIRING YOUNG PEOPLE AND DELIVERING QUALITY EMPLOYMENT



We will support our workforce through providing resources for them to develop and realise their potential. We will create an inclusive and diverse workplace, where we inspire young people recognising the role they can play in the future of a low carbon economy.

OUTCOMES

- Attractive place to work.
- Retention of the workforce.
- Improved awareness and perception of the industry.
- Diversified workforce.
- Increase of people employed from the local area.
- Improved opportunities for development and progression.
- Increased workforce engagement.

PROMOTING WELLBEING IN THE WORKPLACE AND COMMUNITY



We will champion and promote wellbeing across our workforce and within the local community. We want to improve the quality of life of our workforce and local residents empowering them to prioritise their health and wellbeing.

OUTCOMES

- Improved quality of life for workforce and residents.
- Enhanced perception of TGP.
- Fair, decent and safe working environment.
- Improved health and wellbeing.
- Improved community capacity building.

SUPPORTING ENVIRONMENTAL SUSTAINABILITY



We want to increase the knowledge and awareness of sustainability so everyone feels empowered to protect and enhance their local environment. We want to ensure sustainability is built into our decision making to make the sustainable option the priority.

OUTCOMES

- Reduce carbon emissions in the local area.
- Reduce carbon impact of operations.
- Increased awareness and knowledge of sustainability in the local area.
- Improved sustainable choices and practices at the plant and in the local community.

Key Activities

1

CREATE AN EMPLOYMENT AND SKILLS PROGRAMME FOR YOUNG PEOPLE

We will work with partners (educational institutions, charities, and other local businesses) in the local area to co-create a programme of employment and skills engagement. Opportunities could include a mentoring scheme, careers events, 'day in a life' videos, Real Living wage paid work placements, unpaid work experience, establishing an apprenticeship programme, or setting up a scholarship fund. Where possible, build on existing programmes.



YEAR 1-2

SHORT TERM

Identify and connect with partners in local area. Understand existing programmes in local area.

YEAR 3-5

MEDIUM TERM

Co-create a programme of employment and skills engagement with partners, identifying activities to respond to local needs.

YEAR 5+

LONG TERM

Deliver the programme, monitor and assess progress and continuously improve.

Key



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2

DELIVER A COMMUNITY FUND PROGRAMME

We will co-create with the workforce committee a grant fund for community groups, nonprofits and community interest companies to apply for funding. There will be three funding groups to apply for:

1. Fund for activities for under 18s in areas of high deprivation and schools with a high percentage of students eligible for free school meals.
2. Fund for wellbeing activities and infrastructure targeting those most in need.
3. Fund for energy efficiency and renewable energy upgrades to community assets.



YEAR 1-2

SHORT TERM

Work with the workforce committee to set up the fund criteria, timescales and assessment.

YEAR 3-5

MEDIUM TERM

Track and report on community fund programme.

YEAR 5+

LONG TERM

Continually assess budget, fund criteria, and monitor outcomes.

Key Activities

3

SET UP A COMMUNITY PARKS AND GREEN SPACES PROGRAMME

We will work with local partners in target areas to sponsor and co-create a programme of community improvements and outreach. Opportunities could include staff volunteering days in local parks and recognising volunteers from the wider community.

YEAR 1-2

SHORT TERM

Identify and connect with partners in local area. Understand existing initiatives in local area.

YEAR 3-5

MEDIUM TERM

Co-create a programme of improvements and outreach for green spaces with partners, identifying activities to respond to local needs.

YEAR 5+

LONG TERM

Deliver the programme, monitor and assess progress and continuously improve.

Key



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Supporting environmental sustainability.

4

DELIVER A WORKFORCE WELLBEING PROGRAMME

We will work with the workforce committee to co-create a programme of wellbeing activities and initiatives. Opportunities could include improvements to break out areas, provide training to the workforce to become mental health first aiders, funding for social events, and providing free access to sport and wellbeing in the local area.

YEAR 1-2

SHORT TERM

Work with the workforce committee to co-create a programme of wellbeing activities and initiatives.

YEAR 3-5

MEDIUM TERM

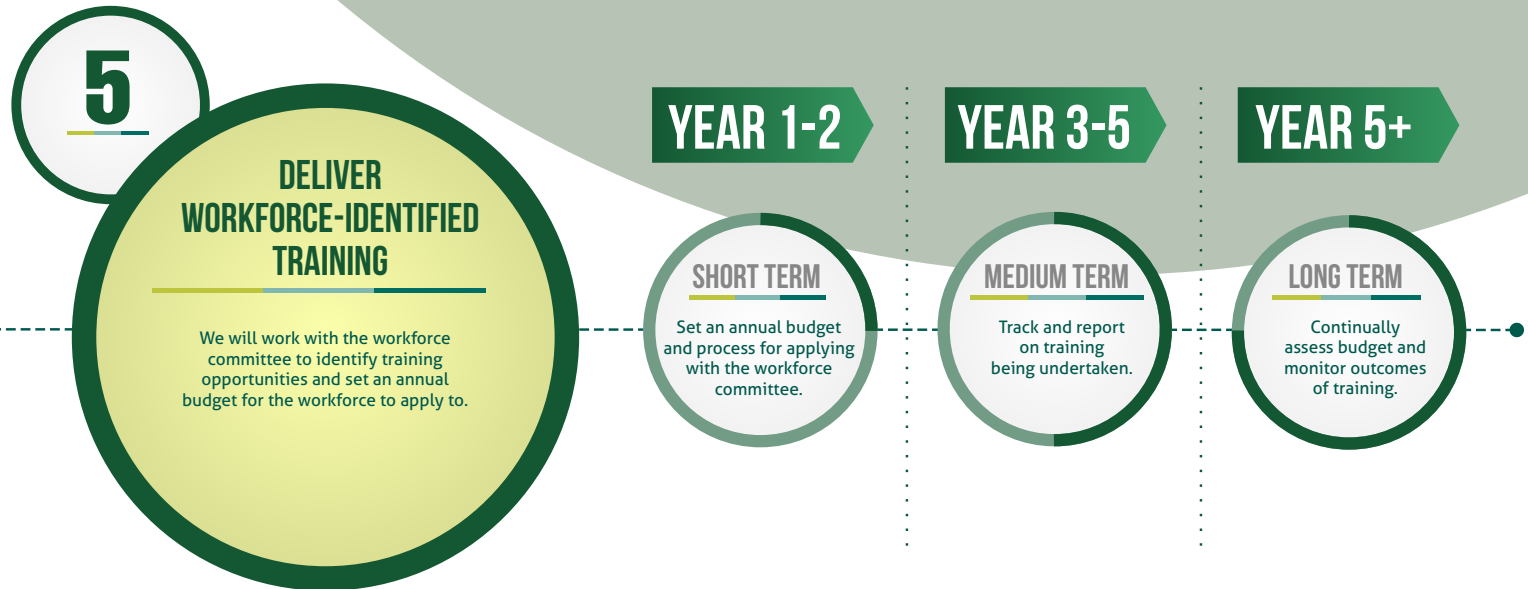
Identify activities to deliver within different timescales.

YEAR 5+

LONG TERM

Deliver the programme, monitor and assess progress and continuously improve.

Key Activities



Key



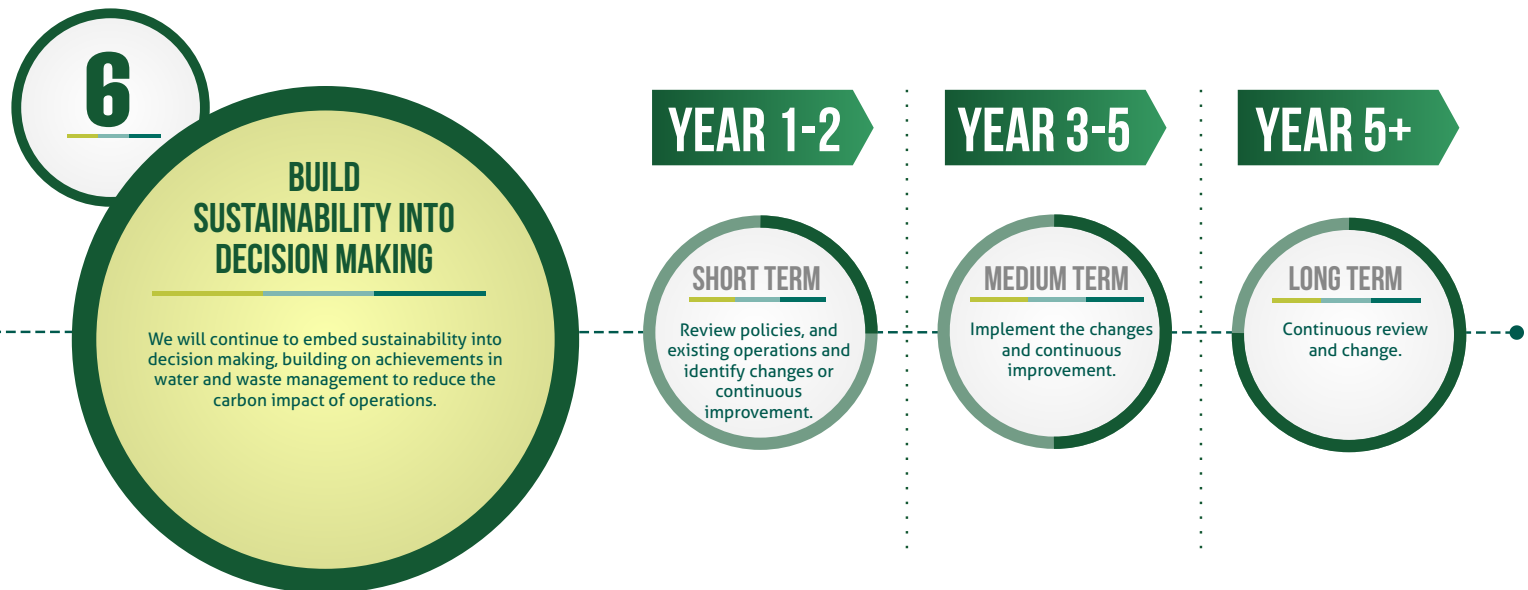
Inspiring young people and delivering quality employment.



Promoting wellbeing in the workplace and community.



Supporting environmental sustainability.



7

ESTABLISH A WORKFORCE COMMITTEE

We will set up a committee who are governed by a terms of reference who will represent the workforce and can be the decision makers on delivering aspects of the Social Value Strategy. This could include agreeing priority activities for the employment and skills programme, making decision on workforce wellbeing initiatives, and agreeing community fund allocations.



YEAR 1-2

SHORT TERM

Identify committee members, establish terms of reference.

YEAR 3-5

MEDIUM TERM

Deliver and implement activities within the strategy.

YEAR 5+

LONG TERM

Continue activities, and elect new members.

Key



Inspiring young people and delivering quality employment.



Promoting wellbeing in the workplace and community.



Supporting environmental sustainability.

8

UNDERTAKE A WORKFORCE SURVEY

We will deliver a workforce survey to gather feedback on workforce wellbeing and skills.



YEAR 1-2

SHORT TERM

Set up the survey, issue to workforce, analyse the feedback and identify action points.

YEAR 3-5

MEDIUM TERM

Implement actions and monitor progress and feedback.

YEAR 5+

LONG TERM

Plan to undertake the survey every five years.

Enablers

9

DEVELOP AN AWARENESS CAMPAIGN

We will work with the marketing teams to identify promotional activity to raise awareness of TGP. Opportunities could include videos on the types of jobs and operations at TGP.

YEAR 1-2

SHORT TERM

Work with the marketing teams to map out opportunities.

YEAR 3-5

MEDIUM TERM

Create a programme of activities.

YEAR 5+

LONG TERM

Monitor delivery and impact of programme, continuously improve.



Key



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Supporting environmental sustainability.

10

REVIEW POLICIES, OPERATIONS, AND JOB ADVERTS

We will review from the viewpoint of protected characteristics (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation). Identify how equalities considerations can be embedded in decision making.

YEAR 1-2

SHORT TERM

Review policies, operations and job adverts and identify changes.

YEAR 3-5

MEDIUM TERM

Implement the changes.

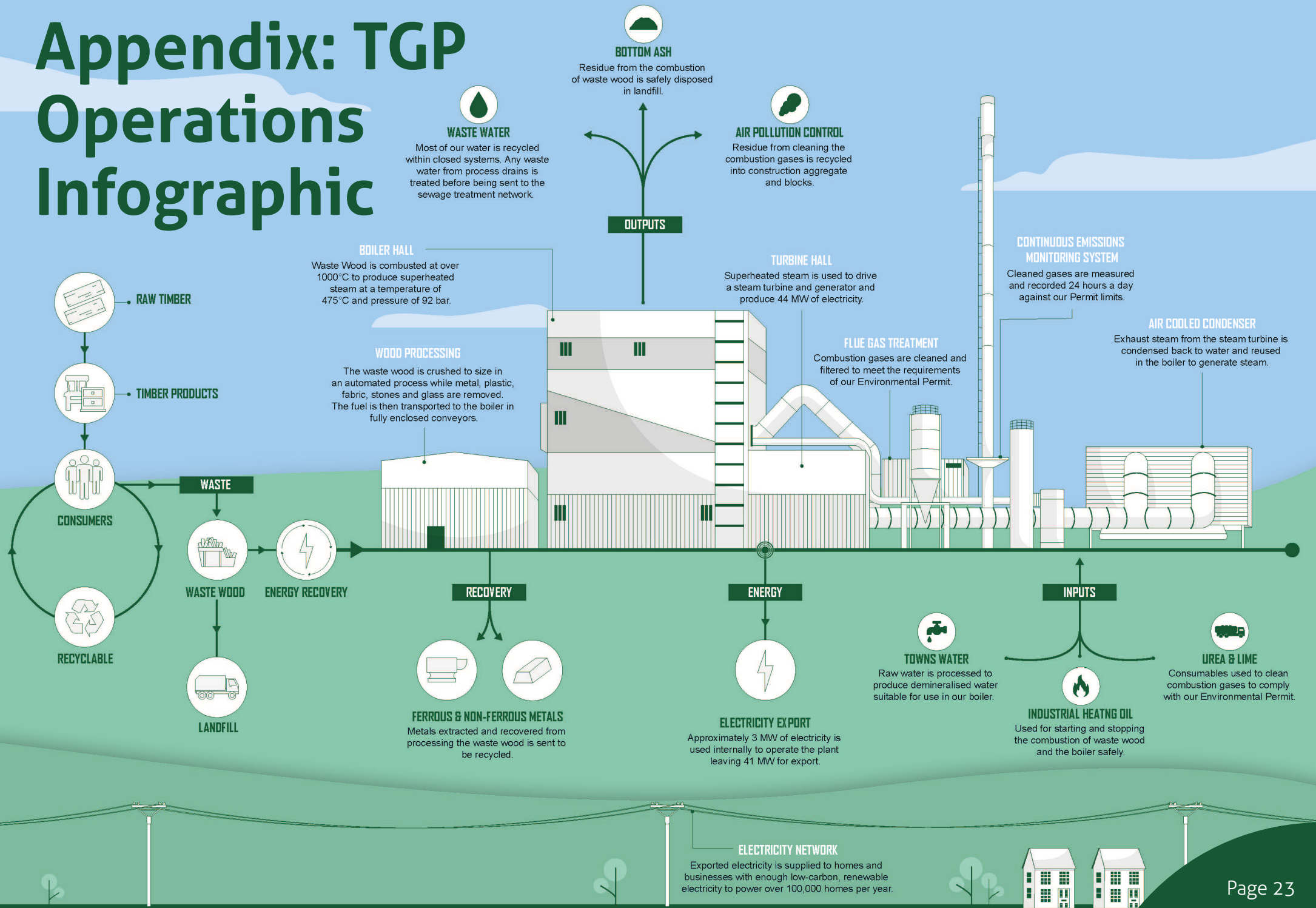
YEAR 5+

LONG TERM

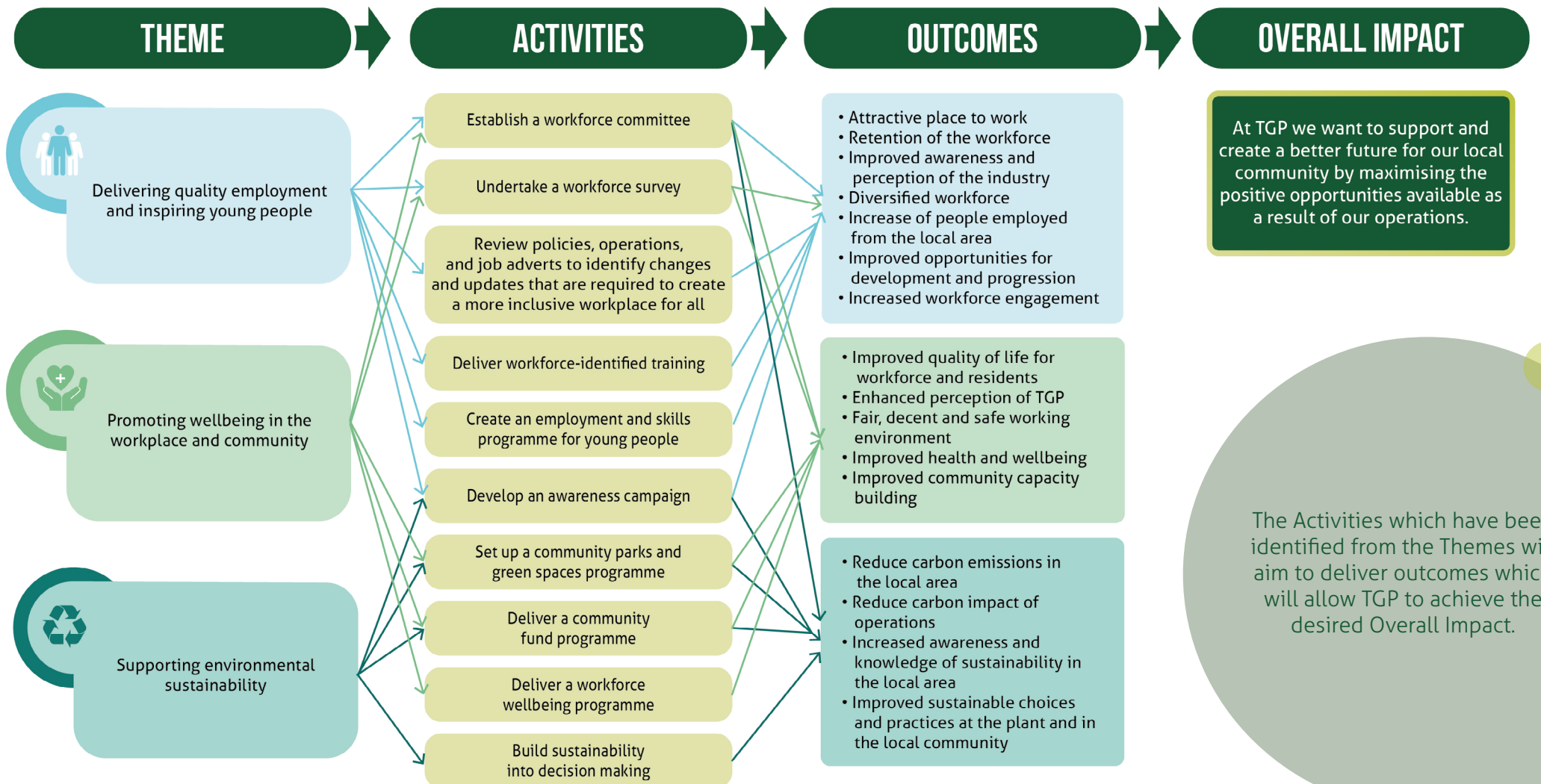
Continuous review and change.



Appendix: TGP Operations Infographic



Appendix: Strategy on a Page



Appendix: Carbon Baseline

The Greenhouse Gas (GHG) Protocol categorises GHG emission into three groups or 'Scopes'. Scope 1, 2 and 3 are explained below.

1. Scope 1 emissions encompass direct GHG emissions that result from sources that are owned or controlled by the organisation. These emissions are produced from activities such as burning fossil fuels on-site (e.g. company-owned vehicles, boilers, furnaces) and other processes like chemical reactions that occur within the organisation's boundaries.
2. Scope 2 emissions include indirect GHG emissions resulting from the generation of purchased energy (e.g. electricity) consumed by the organisation. These emissions occur outside of the organisation's direct operational control but are associated with the energy it purchases and uses.
3. Scope 3 emissions encompass all other indirect GHG emissions that occur in the value chain of the organisation. These emissions are associated with activities and sources both upstream and downstream from the organisation, including but not limited to:
 - Upstream: Purchased goods and services, transportation of goods, extraction and production of purchased materials, and employee commuting.
 - Downstream: Use and disposal of products sold by the organization, investments, and other activities related to the organization's products during their lifecycle.

We have evaluated both the direct carbon emissions to atmosphere and benefits (avoided emission), presented as carbon dioxide equivalent (CO₂e), for TGP for our operations during 2023. The aspects evaluated include:

1. Avoided methane emissions from the alternative disposal option of sending waste wood to landfill;
2. Emissions from the combustion of the non-biogenic portion of waste wood and any heating oil used as support fuel in starting and stopping our plant;
3. Combustion of diesel in our emergency generator;
4. Fuel used in our mobile plant vehicles on site;
5. Emissions associated with importing electricity from the national grid during our maintenance shutdowns;
6. Displaced emissions from marginal power sources on the grid (i.e. gas-fired power stations);
7. Carbon savings associated with recycling of ferrous metals, non-ferrous metals and our Air Pollution Control residue (APCr).

Each of these operations (inputs and outputs) can be seen illustrated on our infographic in this Social Value Strategy. The results of the assessment are shown in the adjacent table.



Appendix: Carbon Baseline

Emissions Burden		Scope 1	Scope 2	Total	Notes
Waste wood combustion	tonnes CO2e	6,432	-	6,432	238,831 tonnes of waste wood combusted with biogenic content of 95% and fossil content of 5%. Determined by measurement from CEMS and calculation as reported to the Environment Agency with biogenic/fossil fuel measurements as reported to Ofgem.
Auxiliary burner combustion	tonnes CO2e	2,630	-	2,630	954,340 litres of diesel (IHO) used for start-up, shut-down and temperature support as required for compliance with the Environmental Permit. Assumed CO2 factor for fuel as per UK Government greenhouse gas reporting factors 2023.
Emergency generator combustion	tonnes CO2e	1	-	1	340 litres of diesel used for testing and operating an emergency generator for safe shutdown of plant. Assumed CO2 factor for fuel as per UK Government greenhouse gas reporting factors 2023.
Mobile plant	tonnes CO2e	14	-	14	5,190 litres of diesel used for operating mobile plant and machinery on site. Assumed CO2 factor for fuel as per UK Government greenhouse gas reporting factors 2023.
Imported electricity	tonnes CO2e	-	169	169	906 MWh of electricity imported to site when the plant was not operating and generating its own electricity (i.e. maintenance outages). Assumed CO2 factor for electricity as per DESNZ Fuel Mix Disclosure (FMD) emissions rate for average UK generation 2023.
Total Burden	tonnes CO2e	9,076	169	9,245	Total calculated fossil based emissions generated by TGP operations.
Emissions Benefits					
Landfill diversion	tonnes CO2e	- 240,581	-	- 240,581	238,831 tonnes of waste wood diverted from landfill disposal. Avoided landfill methane emissions assuming CO2 factor as reported by Ecoinvent v3.9.1
Energy offset	tonnes CO2e	- 112,899	-	- 112,899	Benefit of 304,309 MWh baseload electricity to grid to offset equivalent generation from Combined Cycle Gas Turbine (CCGT) as the assumed marginal source of electricity. Assumed CO2 factor for fuel as per UK Government greenhouse gas reporting factors 2023.
Residues recycling	tonnes CO2e	- 3,363	-	- 3,363	Benefit of recycling 5,829 tonnes of APCr, 2,430 tonnes of ferrous metal and 140 tonnes of non-ferrous metal. Emissions benefit for APCr as per calculations and disclosure by contractor and metals as per Ecoinvent v3.9.1
Total Benefit	tonnes CO2e	- 356,843	-	356,843	Total calculated fossil based emissions offset/avoided by TPG operations.
Net Impact	tonnes CO2e			347,598	Net sum of benefit and burden
Net Impact per tonne of waste processed	tonnes CO2e / tonne waste			1.46	Total Net Impact divided by number of tonnes of waste wood (238,831 tonnes) processed in 2023. Comparison factor for future performance.



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