

UN Global Compact Report  
Communication on Progress 2014

---

**TAYBURN®**

## Contents

- 1 Statement of Support
- 2 The 5 pillars of Our CSR Strategy
- 3 Tayburn Turkey in Brief – The Power of Knowledge
- 4 Human Rights
- 5 Labor Standards
- 6 Environment
- 7 Anti-Corruption
- 8 Conclusion



We are a registered Organizational Stakeholder of the Global Reporting Initiative (GRI) and support the mission of the GRI to develop globally accepted sustainability reporting guidelines through a global, multi-stakeholder process.

## Statement of Support

---

### **On behalf of Tayburn Turkey we are proud to reconfirm our company's commitment to the UN Global Compact.**

We first became a UNGC signatory in 2009 and did so out of the belief that the compact's ten principles truly reflect Tayburn Turkey's operating philosophies, standards, and processes.

At Tayburn Turkey our journey with customers, partners, employees, and suppliers is now in its 20th year. In the course of these two decades, our primary objective as a small-scale enterprise has always been to create and share value.

We are pleased to say that our company has kept a close watch on the increasingly more important worldwide trends and attitudes towards the issues that UNGC seeks to address and that it has made UNGC principles as integral to its corporate reflexes as to its product and service processes. As we have been doing so, we also take pride in having committed ourselves firmly to universally-accepted ethical values while also complying strictly with the requirements of all applicable laws and regulations in our country both as a company and in the reporting and other products and services that we provide to our clients.

Looking back over the period spanning 2012-2013 that this Communication on Progress covers, we have identified the gains that we have made with respect to the ten principles and summarize them for you below.

- We fulfilled our previously-announced environmental plan two years ahead of schedule and we have quantified our carbon footprint for the 2012-2013 period. Detailed information about our progress in this matter is provided in the two attached reports for the years 2012, 2013.
- We are continuing to work on projects related to the Global Compact Turkey Network. As part of our collaboration with GCTN we are working on translating into Turkish Building the Post-2015 Business Engagement Architecture, a report that UN Secretary-General Ban Ki-moon submitted at a world summit meeting held in New York City. We expect to have completed this project before the end of March 2014.
- Also as part of our GCTN undertakings, in 2013 we participated to the "Caring for Climate" Business Forum at the 2013 United Nations Climate Change Conference in Warsaw.
- We were also one of only a handful of companies from Turkey to attend the UNGC summit held in New York in September of last year.
- For us one of the more important developments at the New York conference was that Tayburn became the second company to announce its commitment to the "Business for Peace" initiative.
- We continue to provide our human resources with a safe and satisfying workplace environment. During the reporting period, average training time per employee was twelve hours.

In closing, we intend to remain strictly bound by the values inherent in the Global Compact, Caring for Climate, and Business for Peace initiatives in 2014 and the years that follow and to continue making even greater progress in these directions.

Ronaldo Manosa  
Managing Director

Ediz Usman  
Client Relations Director

## The 5 Pillars of Our CSR Strategy

---

### **Ethical Business Practices**

Tayburn Turkey's business practices must be consistent with the ethical business practices in the markets in which it operates. Tayburn Turkey's activities are to be based on honesty, integrity, transparency and respect.

### **People**

Tayburn Turkey is committed to providing a workplace free of discrimination where all employees can fulfill their potential based on ability and merit. Tayburn Turkey strives to deal with everyone in a fair and open manner.

### **Sector-Community**

Tayburn Turkey is committed to being a contributor of positive change within its sector and community. The Company encourages its employees' efforts to support the communities in which they live through social investment, business relationships, and participation in charitable endeavors.

### **Environment**

Tayburn Turkey is committed to protecting the environment and health and safety of its employees. The Company is conscious of its responsibility to conserve resources and continuously look for ways to more efficiently use resources to reduce the environmental burden of waste generation.

### **Data Protection**

Unauthorized disclosure of sensitive information can result in Tayburn Turkey and its customers failing to comply with industry best practices, compliance or legislative requirements. These events impact customer retention and result in financial or reputation damage. Tayburn Turkey takes great care and responsibility with customer data.

## Tayburn Turkey in Brief – The Power of Knowledge

---

Celebrating its 18th year in service, Tayburn offers its customers an extensive array of products and services in the fields of

- **annual reporting and investor relations**
- **sustainability reporting**
- **web and electronic products**
- **branding**
- **specialized editorial services**
- **marketing**

In every project that it undertakes, Tayburn focuses on delivering original, workable, high added value solutions.

Tayburn Turkey is the Turkish joint venture of Tayburn Ltd. Scotland's leading strategic and creative consultancy that believes in a more holistic and integrated approach to communication. One that builds powerful brands and shapes strong reputations.

For detailed information please see:

[www.tayburnkurumsal.com](http://www.tayburnkurumsal.com)

[www.tayburn.co.uk](http://www.tayburn.co.uk)

## Human Rights

---

### Principle 1

Businesses should support and respect the protection of internationally proclaimed human rights.

### Principle 2

Businesses should make sure that they are not complicit in human rights abuses.

### Implementation

Tayburn Turkey has a published Statement on Human Rights which is aligned with the Universal Declaration of Human Rights, and has been a member of the United Nations Global Compact since 2009. The Company has systems applied internally to manage its approach to human rights.

To ensure the Company operates in a sustainable manner in 2011 we have established a Sustainability Committee to assess sustainability issues and strategies. All departments are represented at the committee which reports into the Managing Board and sets sustainable practices.

To help us evaluate and mitigate risk that may impact upon human rights the Company is currently updating its Code of Ethics and Social and Environmental standards. These updated policies will be communicated and implemented throughout 2014.

**Our employees are the backbone of our business. Their dedication, productivity and experience make it possible for us to remain innovative and competitive. Our continued success is dependent upon its ability to meet the needs of its workforce.**

## Labor Standards

---

### Principle 3

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

### Principle 4

Businesses should support the elimination of all forms of forced and compulsory labor.

### Principle 5

Businesses should support the effective abolition of child labor.

### Principle 6

Businesses should support the elimination of discrimination in respect of employment and occupation.

### Implementation

Tayburn Turkey believes that the only way to take advantage of the growth opportunities in the market is through employing competent human resources. We continuously aim to be one of the most desired places to work for by sustaining a secure work environment that awards success and promotes individual initiative taking. As of November 2011, Tayburn Turkey employs 15 full time individuals of different ages, genders, ethnicities, physical and mental abilities and lifestyles and values the unique background of each of its employees.

Forced or involuntary labor is not tolerated by Tayburn Turkey. This includes work on a forced contract, slavery and other forms of work against one's will. Tayburn Turkey respects children's rights. Therefore, the Company does not support child labor and does not use children as part of its work force. Tayburn Turkey contributes education systems, where it can, in providing work placements or internships as part of university or vocational courses of study.

Tayburn Turkey will not discriminate (or tolerate discrimination by its employees) against any applicant or employee based on age, gender, race, color, religion, national origin, ancestry, sexual orientation, disability, marital status.

At Tayburn Turkey all employment decisions related to new hires, transfers, promotions and compensation are based on experience, skills, qualifications and responsibilities. To promote gender equality, in 2013 the recruitment process has been reviewed to ensure that a female is included on all shortlists.

**The key to providing high quality corporate communication services for Tayburn Turkey is having professional human resources.**

## Environment

---

**Principle 7**

Businesses should support a precautionary approach to environmental challenges.

**Principle 8**

Businesses should undertake initiatives to promote greater environmental responsibility.

**Principle 9**

Businesses should encourage the development and diffusion of environmentally friendly technologies.

**Implementation**

Tayburn Turkey is committed to managing environmental issues and aims at continuous improvement in its environmental management and performance. Although corporate communication agencies are not clearly identified with environmental management in Turkey, we have a history of promoting environmental responsibility. It represents an important part of our culture and identity as an organization.

Our Sustainability Committee is responsible for monitoring and refining environmental policies and ensuring that these are integrated into Tayburn Turkey’s philosophy and practice. At an executive level the Managing Director has overall accountability for the management of environmental and sustainability issues.

Tayburn Turkey conducts its operations in a manner that is committed to recycling, conservation of resources, prevention of pollution, and promotion of environmental responsibility among its employees, its customers and the supply chain.

The Company provides products and services to its customers that promote sustainability, CSR and environmental issues. Tayburn Turkey believes that by supporting actively such projects it contributes to an environmentally sound economy and world.

**Tayburn Turkey’s Carbon Neutralization Project**

2012	2013	2014	2015
Reduce electricity consumption	Start using renewable energy	Calculate carbon footprint	Be carbon-neutral by 2015 and remain so thereafter
Achieved	Rescheduled for 2015	Completed two years earlier than scheduled.	

Having completed its efforts two years ahead of its proposed schedule, Tayburn has quantified its carbon footprint for the 2012-2013 period. Please consult the accompanying reports for further details.

The company’s ultimate goals are to become and remain carbon-neutral by 2015 at the latest and to play a pioneering and exemplary role in such matters in the Turkish market.



## Anti-Corruption

---

### Principle 10

Businesses should work against corruption in all its forms, including extortion and bribery.

### Implementation

Tayburn Turkey is committed to upholding high moral and ethical principles and specifies the basic norms of behavior for its employees.

While Tayburn Turkey's business practices must be consistent with the ethical business practices in the markets in which it operates, the Company believes that honesty is the essential standard of integrity throughout the globe.

Ethical business lies at the heart of the Tayburn Turkey's CSR pillars. We aspire to play a positive part in society, grow value, attract and develop the best kind of people. The Company's reputation and its future success are critically dependent on compliance, not just with the law, but with the highest ethical standards.

Fees, commissions, or any form of payment intended to induce or reward favorable decisions and actions are unacceptable and prohibited. Employees of Tayburn Turkey may not, in violation of any law, pay or offer to pay or give anything of value to induce or reward favorable action in any business transaction. These provisions are not intended to apply to routine, reasonable business entertainment or gifts of minor value, customary in business relationships.

**Tayburn Turkey's activities are to be based on honesty, integrity and respect.**

## Conclusion

---

Tayburn Turkey views the incorporation of sustainable development in our strategy and business operations as the means to achieve the delicate balance between economic objectives, social development activities and environmental responsibility.

This is exemplified by our commitment to social upliftment, providing access to our products and services on a responsible basis, striving to be a great place to work, minimizing the environmental impact of our business

operations and developing innovative products and partnerships that illustrate the link between social and environmental considerations and, of course, operating a profitable company.

This approach is taken not only because it is the right thing to do, but also in recognition of the financial and reputational benefits of integrating sustainability into sound business practices.

**TAYBURN®**

**GAIA**  
carbomanagement

**TAYBURN TURKEY**  
**GREEN HOUSE GAS INVENTORY**  
**(Carbon Footprint – 2012)**

18.10.2013

1

*Gaia Carbon Management*  
*Zafer Sok. Manuel Apt. No:11/4 Şişli 34371 İstanbul*  
*Tel : +90 212 224 04 50-51 Fax : +90 212 224 04 66*

*This report has been prepared by Gaia Carbon Management in good faith based on the data provided by the Client. All relevant calculations and methods are under copyright protection.*

## 1. INTRODUCTION

Climate change is one of the biggest problems encountered on a global scale. Climate change and environment are not only ecological phenomena, they are also directly related with economy, energy, industrial investments, social life and law. Under the light of recent developments, climate change has an impact on all aspects of our lives including physical and natural environment.

The effects of climate change are the ecological and social changes caused by the rise in global temperatures. Yet as greenhouse gas (GHG) emission levels continued to rise around the world, it became increasingly evident that only a firm and binding commitment by developed countries to reduce emissions could send a signal strong enough to convince businesses, communities and individuals to act on climate change.

A greenhouse gas (mostly abbreviated as GHG) is a gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect. The primary greenhouse gases in the Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone. A greenhouse gas inventory is an accounting of greenhouse gases (GHGs) emitted to or removed from the atmosphere over a period of time. Policy makers use inventories to establish a baseline for tracking emission trends, developing mitigation strategies and policies, and assessing progress. An inventory is usually the first step taken by entities that want to reduce their GHG emissions. An inventory can help ;

- Identify the sectors, sources, and activities within their jurisdiction that are responsible for greenhouse gas emissions
- Understand emission trends
- Quantify the benefits of activities that reduce emissions
- Establish a basis for developing a local action plan
- Track progress in reducing emissions
- Set goals and targets for future reductions

The six main greenhouse gases, namely:

- Carbon dioxide (CO<sub>2</sub>),
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulphur hexafluoride (SF<sub>6</sub>)

And these gases are chemically stable and persist in the atmosphere over time scales of a decade to centuries or longer, so that their emission has a long-term influence on climate. Because they are long lived, they become well mixed throughout the atmosphere much faster than they are removed and their global concentrations can be accurately estimated from data at a few locations.

Symbol	Name	Common Sources
CO <sub>2</sub>	Carbon Dioxide	Fossil fuel combustion, forest clearing, cement production, etc.
CH <sub>4</sub>	Methane	Landfills, production and distribution of natural gas & petroleum, fermentation from the digestive system of livestock, rice cultivation, fossil fuel combustion, etc.
N <sub>2</sub> O	Nitrous Oxide	Fossil fuel combustion, fertilizers, nylon production, manure, etc.
HFC's	Hydrofluorocarbons	Refrigeration gases, aluminum smelting, semiconductor manufacturing, etc.
PFC's	Perfluorocarbons	Aluminum production, semiconductor industry, etc.
SF <sub>6</sub>	Sulfur Hexafluoride	Electrical transmissions and distribution systems, circuit breakers, magnesium production, etc.

**Table 1** : Symbols and names of main greenhouse gases and their common source

Greenhouse gases	Global Warming Potential (GWP)	Lifetime in atmosphere (year)
CO <sub>2</sub>	1	50-200
CH <sub>4</sub>	21	12
N <sub>2</sub> O	310	114
HFCs	140-11700	1-270
PFCs	6,500 - 9,200	800-50000
SF <sub>6</sub>	23900	3200

**Table 2 :** Global Warming Potentials of Greenhouse Gases and Lifetime in Atmosphere (IPCC 1996)

The GHG emissions generated directly and indirectly by an entity such as a federal agency can be classified into “scopes,” based on the source of the emissions:

- *Scope 1* emissions are direct GHG emissions from sources that are owned or controlled by the entity. Scope 1 can include emissions from fossil fuels burned on site, emissions from entity-owned or entity-leased vehicles, and other direct sources.
- *Scope 2* emissions are indirect GHG emissions resulting from the generation of electricity, heating and cooling, or steam generated off site but purchased by the entity, and the transmission and distribution (T&D) losses associated with some purchased utilities (e.g., chilled water, steam, and high temperature hot water).

- *Scope 3* emissions include indirect GHG emissions from sources not owned or directly controlled by the entity but related to the entity’s activities. Scope 3 GHG emission sources currently required for federal GHG reporting include T&D losses associated with purchased electricity, employee travel and commuting, contracted solid waste disposal, and contracted wastewater treatment. Additional sources that are currently optional under federal reporting requirements, but are significant, include GHG emissions from leased space, vendor supply chains, outsourced activities, and site remediation activities.

### “Boundaries” in a GHG inventory

- Boundaries are imaginary lines encompassing the emissions to be included in a GHG inventory
- Organizational boundaries determine which operations are owned or controlled by the company and therefore should be included in the inventory. The more complex the corporate structure, the more important organizational boundaries become. Conversely, in companies with a very simple corporate structure, it may matter little how organizational boundaries are chosen. Regardless of corporate complexity, though, organizational boundaries must still be defined.
- Operational boundaries determine which operations and sources generate emissions, and which sources should be included in the inventory, and how those sources should be classified.

Organizational boundaries can be established based on one or more “**consolidation approaches**”

- Equity share approach

- Control approach

Companies must consistently apply their selected approach across the organization to define those businesses and operations that constitute the company for purposes of the GHG inventory.

### **1) Equity share approach**

- This approach accounts for emissions according to the equity share the company holds in the operation Example: If your company owns 40% of an operation, it must account for 40% of the GHG emissions from that operation, regardless of who “controls” the operations
- The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards in an operation that is aligned with the company’s percentage ownership of that operation. Equity share is normally the same as the ownership percentage always overrides the legal ownership form to ensure that equity share reflects the percentage of economic interests.

### **2) Control approach**

- This approach accounts for 100% of the emissions from operations over which the company has “control”
- Emissions from operations where the company has an economic interest, but does not have operational control of the plant or organization’s operations are excluded.

Control can be defined in one of two ways:

- Financial control
- Operational control



## 2. Data and Calculations

The first step in calculating the greenhouse gas sources that are caused by Tayburn Turkey is collecting source data. In this study, the datasets were provided by the firm.

### *Boundary Analysis*

The firm pursues one office in Turkey and all services are provided from that office. The boundary of the study is considered to be the office and related office activities. Hence, an operational boundary is considered. Financial and operational control boundary issues have been omitted.

### *Scope Analysis*

The scope is limited to Scope 1 and 2, direct and indirect GHG emissions respectively. The supplier based GHG emissions such as the emissions of the vendors, transporters or outsourcing companies are not included.

The source data and the GHG calculation of data are presented below;

Scope 1	Emission Factors						
Emission Sources	Amount	Unit	CO2	CH4	N2O	tHFC-227ea	SF6
Heating							
Natural Gas	465	m3	0.002028	1.4286E-07	3.871E-09	0	0
Vehicles							
Gas	1260	lt	0.0026569	4.29E-08	6.16129E-08	0	0
Scope 2							
Electricity	23977	kW	0.000459598	8.95E-09	7.58E-09	0	0

Emission Calculations					
Scope 1	tCO <sub>2</sub>	tCH <sub>4</sub>	tN <sub>2</sub> O	tHFC-227ea	SF6
Natural Gas	0.94302	6.6429E-05	1.80002E-06	0	0
Gas	3.347694	5.40E-05	7.76323E-05	0	0
Scope 2					
Electricity	11.01978604	2.15E-04	1.82E-04	0	0

Scope 1	tCO <sub>2</sub>	tCH <sub>4</sub>	tN <sub>2</sub> O	tHFC-227ea	SF6	Total tCO <sub>2</sub> e
<b>Natural Gas</b>	0.94302	6.6429E-05	1.80002E-06	0	0	
GWP	1	21	310			
tCO <sub>2</sub> e	0.94302	0.001395	0.000558005	0	0	0.944973004
<b>Gas</b>	3.347694	5.40E-05	7.76323E-05	0	0	
GWP	1	21	310			
tCO <sub>2</sub> e	3.347694	1.13E-03	0.024066	0	0	3.37
<b>Scope 2</b>						
<b>Electricity</b>	11.01978604	2.15E-04	1.82E-04	0	0	
GWP	1	21	310			
tCO <sub>2</sub> e	11.01978604	4.51E-03	5.63E-02	0	0	11.08
Total tCO <sub>2</sub> e						15.40

**Table 3 : Emission Calculations**

As seen in the table, the total amount of GHG inventory for Tayburn Turkey is 15.40 tCO<sub>2</sub>e. Almost 72 percent of that amount comes from Scope 2 emissions that consist the electricity use of the company from the grid.



TAYBURN TURKEY  
GREEN HOUSE GAS INVENTORY  
(Carbon Footprint - 2013)

28.01.2014

1

*Gaia Carbon Management*  
*Zafer Sok. Manuel Apt. No:11/4 Şişli 34371 İstanbul*  
*Tel : +90 212 224 04 50-51 Fax : +90 212 224 04 66*

*This report has been prepared by Gaia Carbon Management in good faith based on the data provided by the Client. All relevant calculations and methods are under copyright protection.*

## 1. INTRODUCTION

Climate change is one of the biggest problems encountered on a global scale. Climate change and environment are not only ecological phenomena, they are also directly related with economy, energy, industrial investments, social life and law. Under the light of recent developments, climate change has an impact on all aspects of our lives including physical and natural environment.

The effects of climate change are the ecological and social changes caused by the rise in global temperatures. Yet as greenhouse gas (GHG) emission levels continued to rise around the world, it became increasingly evident that only a firm and binding commitment by developed countries to reduce emissions could send a signal strong enough to convince businesses, communities and individuals to act on climate change.

A greenhouse gas (mostly abbreviated as GHG) is a gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect. The primary greenhouse gases in the Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone. A greenhouse gas inventory is an accounting of greenhouse gases (GHGs) emitted to or removed from the atmosphere over a period of time. Policy makers use inventories to establish a baseline for tracking emission trends, developing mitigation strategies and policies, and assessing progress. An inventory is usually the first step taken by entities that want to reduce their GHG emissions. An inventory can help ;

- Identify the sectors, sources, and activities within their jurisdiction that are responsible for greenhouse gas emissions
- Understand emission trends
- Quantify the benefits of activities that reduce emissions
- Establish a basis for developing a local action plan
- Track progress in reducing emissions
- Set goals and targets for future reductions

The six main greenhouse gases, namely:

- Carbon dioxide (CO<sub>2</sub>),
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulphur hexafluoride (SF<sub>6</sub>)

And these gases are chemically stable and persist in the atmosphere over time scales of a decade to centuries or longer, so that their emission has a long-term influence on climate. Because they are long lived, they become well mixed throughout the atmosphere much faster than they are removed and their global concentrations can be accurately estimated from data at a few locations.

Symbol	Name	Common Sources
CO <sub>2</sub>	Carbon Dioxide	Fossil fuel combustion, forest clearing, cement production, etc.
CH <sub>4</sub>	Methane	Landfills, production and distribution of natural gas & petroleum, fermentation from the digestive system of livestock, rice cultivation, fossil fuel combustion, etc.
N <sub>2</sub> O	Nitrous Oxide	Fossil fuel combustion, fertilizers, nylon production, manure, etc.
HFC's	Hydrofluorocarbons	Refrigeration gases, aluminum smelting, semiconductor manufacturing, etc.
PFC's	Perfluorocarbons	Aluminum production, semiconductor industry, etc.
SF <sub>6</sub>	Sulfur Hexafluoride	Electrical transmissions and distribution systems, circuit breakers, magnesium production, etc.

**Table 1** : Symbols and names of main greenhouse gases and their common source

Greenhouse gases	Global Warming Potential (GWP)	Lifetime in atmosphere (year)
CO <sub>2</sub>	1	50-200
CH <sub>4</sub>	21	12
N <sub>2</sub> O	310	114
HFCs	140-11700	1-270
PFCs	6,500 - 9,200	800-50000
SF <sub>6</sub>	23900	3200

**Table 2 :** Global Warming Potentials of Greenhouse Gases and Lifetime in Atmosphere (IPCC 1996)

The GHG emissions generated directly and indirectly by an entity such as a federal agency can be classified into “scopes,” based on the source of the emissions:

- *Scope 1* emissions are direct GHG emissions from sources that are owned or controlled by the entity. Scope 1 can include emissions from fossil fuels burned on site, emissions from entity-owned or entity-leased vehicles, and other direct sources.
- *Scope 2* emissions are indirect GHG emissions resulting from the generation of electricity, heating and cooling, or steam generated off site but purchased by the entity, and the transmission and distribution (T&D) losses associated with some purchased utilities (e.g., chilled water, steam, and high temperature hot water).

- *Scope 3* emissions include indirect GHG emissions from sources not owned or directly controlled by the entity but related to the entity’s activities. Scope 3 GHG emission sources currently required for federal GHG reporting include T&D losses associated with purchased electricity, employee travel and commuting, contracted solid waste disposal, and contracted wastewater treatment. Additional sources that are currently optional under federal reporting requirements, but are significant, include GHG emissions from leased space, vendor supply chains, outsourced activities, and site remediation activities.

### “Boundaries” in a GHG inventory

- Boundaries are imaginary lines encompassing the emissions to be included in a GHG inventory
- Organizational boundaries determine which operations are owned or controlled by the company and therefore should be included in the inventory. The more complex the corporate structure, the more important organizational boundaries become. Conversely, in companies with a very simple corporate structure, it may matter little how organizational boundaries are chosen. Regardless of corporate complexity, though, organizational boundaries must still be defined.
- Operational boundaries determine which operations and sources generate emissions, and which sources should be included in the inventory, and how those sources should be classified.

Organizational boundaries can be established based on one or more “**consolidation approaches**”

- Equity share approach

- Control approach

Companies must consistently apply their selected approach across the organization to define those businesses and operations that constitute the company for purposes of the GHG inventory.

### **1) Equity share approach**

- This approach accounts for emissions according to the equity share the company holds in the operation Example: If your company owns 40% of an operation, it must account for 40% of the GHG emissions from that operation, regardless of who “controls” the operations
- The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards in an operation that is aligned with the company’s percentage ownership of that operation. Equity share is normally the same as the ownership percentage always overrides the legal ownership form to ensure that equity share reflects the percentage of economic interests.

### **2) Control approach**

- This approach accounts for 100% of the emissions from operations over which the company has “control”
- Emissions from operations where the company has an economic interest, but does not have operational control of the plant or organization’s operations are excluded.

Control can be defined in one of two ways:

- Financial control
- Operational control



## 2. Data and Calculations

The first step in calculating the greenhouse gas sources that are caused by Tayburn Turkey is collecting source data. In this study, the datasets were provided by the firm.

### *Boundary Analysis*

The firm pursues one office in Turkey and all services are provided from that office. The boundary of the study is considered to be the office and related office activities. Hence, an operational boundary is considered. Financial and operational control boundary issues have been omitted.

### *Scope Analysis*

The scope is limited to Scope 1 and 2, direct and indirect GHG emissions respectively. The supplier based GHG emissions such as the emissions of the vendors, transporters or outsourcing companies are not included.

The source data and the GHG calculation of data are presented below;

Emission Sources	Emission Factors						
	Amount	Unit	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	tHFC-227ea	SF <sub>6</sub>
Scope 1							
Heating							
Natural gas	710	m3	0,002028	1,429E-07	3,871E-09	0	0
Vehicles							
Gas	1150	lt	0,0026569	4,29E-08	6,16129E-08	0	0
Scope 2							
Electricity	20133	kW	0,0004596	8,95E-09	7,58E-09	0	0

Emission Calculations					
Scope 1	tCO <sub>2</sub>	tCH <sub>4</sub>	tN <sub>2</sub> O	tHFC-227ea	SF <sub>6</sub>
Natural gas	1,43988	0,0001014	2,74841E-06	0	0
Gas	3,055435	4,93E-05	7,08548E-05	0	0
Scope 2					
Electricity	9,25309056	1,80E-04	1,53E-04	0	0

Emission Calculations (tCO <sub>2</sub> e)						
Scope 1	tCO <sub>2</sub>	tCH <sub>4</sub>	tN <sub>2</sub> O	tHFC-227ea	SF6	Total tCO <sub>2</sub> e
Natural gas	1,43988	0,0001014	2,74841E-06	0	0	
GWP	1	21	310			
tCO <sub>2</sub> e	1,43988	0,00213	0,000852007	0	0	1,44
Gas	3,055435	4,93E-05	7,08548E-05	0	0	
GWP	1	21	310			
tCO <sub>2</sub> e	3,055435	1,04E-03	0,021965	0	0	3,08
Scope 2						
Electricity	9,25309056	1,80E-04	1,53E-04	0	0	
GWP	1	21	310			
tCO <sub>2</sub> e	9,25309056	3,79E-03	4,73E-02	0	0	9,3
Total tCO <sub>2</sub> e						13,8

**Table 3 :** Emission Calculations

As seen in the table, the total amount of GHG inventory for Tayburn Turkey is 13.80 tCO<sub>2</sub>e. Almost 69 percent of that amount comes from Scope 2 emissions that consist the electricity use of the company from the grid.

**TAYBURN®**

Süleyman Seba Cad. Acısu Sok. 1/15 Maçka 34357 İstanbul

Tel (212) 227 0436 / (533) 519 5517 / (542) 829 2924  
Faks (212) 227 8857

[www.tayburnkurumsal.com](http://www.tayburnkurumsal.com)