



FXFOWLE Architects
EPA Climate Leaders Small Business Case Study

Ilana Judah, Int'l Assoc. AIA, OAQ, LEED
Director of Sustainability, FXFOWLE Architects

FXFOWLE - Who are we?

- **33 year** old architecture, interior design and urban planning firm
- Services company with significant international work
- **120 employees** - architects, designers, planners, auxiliary staff
- Satellite offices in Washington DC and Dubai
- Javits Center project office
- Tenant in **100+ year** old building
- Occupy 9th, 10th and 11th (top) floor



EPA Climate Leaders - Signing On

- FXFOWLE signed on in 2008
- Established 2008 as baseline year
- Boundary conditions established:
 - Operational Control approach
 - Main New York Office
 - Direct: Refrigerants & Fire Suppression
 - Indirect: Electricity Usage
 - Optional: Employee Travel & Commuting
- Inventory Management Plan developed



Inventory Management Plan

FXFOWLE CLIMATE LEADERS INVENTORY MANAGEMENT PLAN

PARTNER INFORMATION

FXFOWLE ARCHITECTS, LLC

22 West 19th Street, New York, NY 10011

Contact: Ilana Judah, Manager of Sustainability, 646-292-8116

BOUNDARY CONDITIONS

5. Organizational Boundary

The Operational Control Approach will be used to establish boundaries and account for GHG emissions from FXFOWLE facilities. Using this approach, FXFOWLE will account for the GHG emissions from electrical usage at facilities over which it has control. For leased facilities, Operational Control means that FXFOWLE has the ability to influence and track energy consumption. FXFOWLE either has access to electric usage data directly from the utility or access to utility bills from the landlord. In the case of a shared space, utility usage can be accurately allocated to FXFOWLE by a separate meter or by prorating based on percent of occupied square footage. Due to a lack of operational control over facility operations, Javits II Architecture will be excluded from the IMP. The inventory will be limited to domestic GHG emissions, excluding the facilities of FXFOWLE International, although global emissions may be considered in the future years. Optional emissions are limited to FXFOWLE employees. Employees are defined for the purposed of this document as full and part-time employees and partners of FXFOWLE Architects, LLC. This excludes consultants, temporary personnel (e.g. summer interns), and employees of FXFOWLE International.

6. Facilities List

Included:

FXFOWLE	22 West 19th Street, 11th Floor Entire	New York, NY	LEASED
FXFOWLE	22 West 19th Street, 10th Floor North	New York, NY	LEASED
FXFOWLE	22 West 19th Street, 9th Floor South	New York, NY	LEASED
FXFOWLE	22 West 19th Street, 9th Floor North	New York, NY	LEASED

Excluded:

Javits II Architecture	330 W. 34th Street, 18th Floor	New York, NY	LEASED
FXFOWLE International		Dubai, UAE	LEASED

7. GHG Sources

Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O) from Purchased Electricity, Employee Business Travel and Employee Commuting are included in the FXFOWLE GHG Inventory. HFCs from refrigeration equipment and CO₂ from fire suppression equipment are also included. Emissions from fuel oil used for building heating and hot water are not included in the inventory due to lack of operational control.

Inventory Management Plan - Details

BOUNDARY CONDITIONS

- Organizational Boundary
- Facilities List (included & excluded)
- GHG Sources
- Emission Source Identification Procedure
- Direct Sources of GHG Emissions
- Indirect Sources of GHG Emissions
- Optional Sources of GHG Emissions

EMISSIONS QUANTIFICATION

- Quantification Method
- Emission Factors

DATA MANAGEMENT

- Activity Data
- Data Management
- Data Collection Process – Quality Assurance
- Data Collection Security
- Integrated Tools
- Frequency



Inventory Management Plan - Details

BASE YEAR

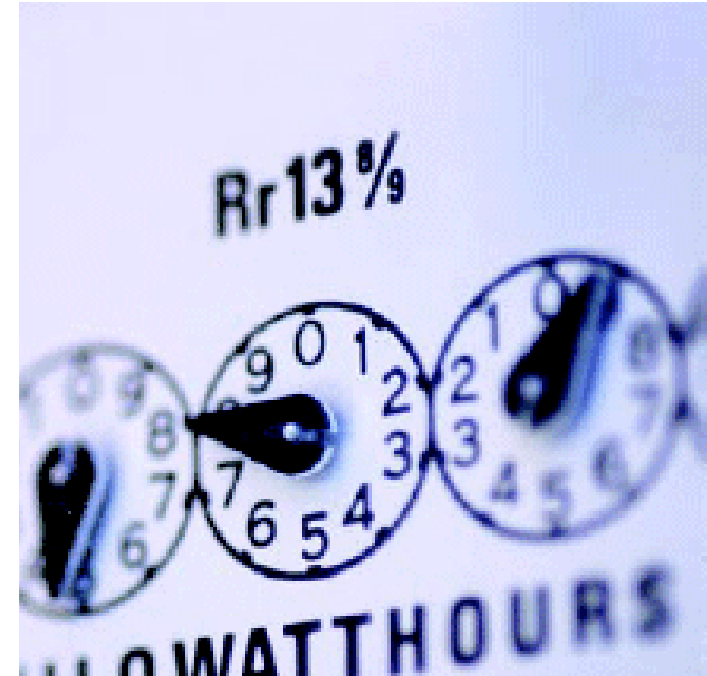
- Adjustment - Structural Changes
- Adjustment - Methodology Changes

MANAGEMENT TOOLS

- Roles and Responsibilities
- Training

AUDITING AND VERIFICATION

- Document Retention and Control Policy
- Internal Auditing
- External Validation and/or Verification
- Management Review
- Corrective Action



EPA Climate Leaders - Data Collection

- Electricity use data from landlord metered by floor and zone
- Refrigerant & fire suppression recharge information from contractors
- Annual mileage report from company car service
- AMTRAK rewards mileage program to track train travel
- Annual mileage breakdown from travel agent - short, medium and long haul flights
- Annual employee commuter survey



Simplified Greenhouse Gas Emissions Calculator

Summary of Company Emissions:

Direct Emissions

Stationary Combustion	0	CO ₂ -e (metric tons)
Mobile Sources	0	CO ₂ -e (metric tons)
Refrigeration / AC Equip. Use / Fire Suppression	0	CO ₂ -e (metric tons)

Indirect Emissions

Purchased and Consumed Electricity	178	CO ₂ -e (metric tons)
Purchased and Consumed Steam	0	CO ₂ -e (metric tons)

Optional Emissions

Employee Business Travel	200	CO ₂ -e (metric tons)
Employee Commuting	1	CO ₂ -e (metric tons)
Product Transport	0	CO ₂ -e (metric tons)
Biomass Emissions from Stationary Sources	0	CO ₂ -e (metric tons)
Biomass Emissions from Mobile Sources	0	CO ₂ -e (metric tons)

Total Company Emissions

Total GHG Emissions (not including Optional Emissions)	178	CO ₂ -e (metric tons)
Total Optional Emissions	201	CO ₂ -e (metric tons)

EPA Climate Leaders - Reporting & Goal Setting

- Completion of SGEC Tool
- Completion of Inventory Summary
- Energy Star Portfolio Manager
- Goal setting: 15% electricity reduction
 1. Power save on computers
 2. Lighting retrofit
 3. Lights off policies
 4. Adjust temperature set points
 5. Future HVAC audit
- Goal setting: Carbon Neutrality
 1. More videoconferencing
 2. REC's purchase
 3. Carbon Offsets purchase



FXFOWLE - 2008 Results

Direct Emissions

Refrigerants & Fire Suppression 0.0

Indirect Emissions

Purchased and consumed electricity

11th floor	91.9
10th floor	38.8
9th floor south	18.6
9th floor north	29.4

Optional Emissions

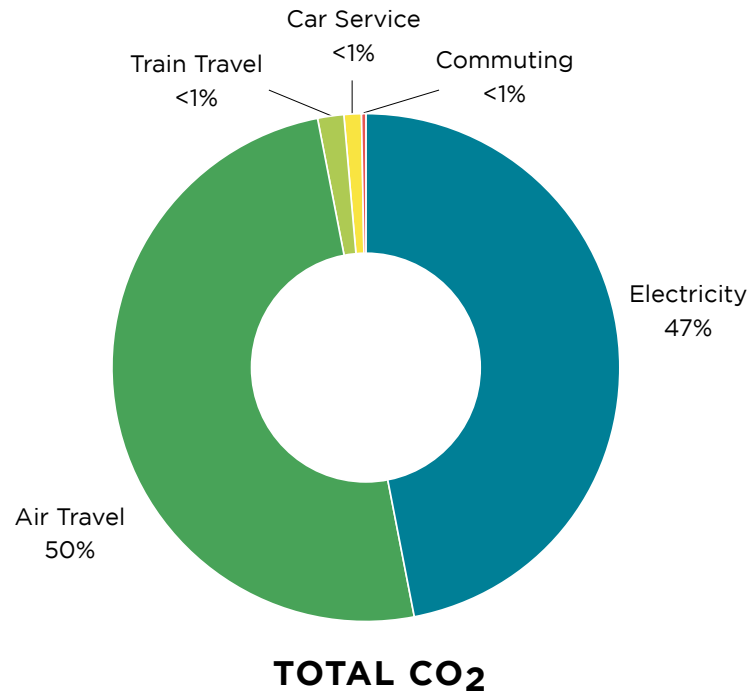
Employee Business Travel

Air Travel	189.9
Train Travel	6.6
Car Service	3.8

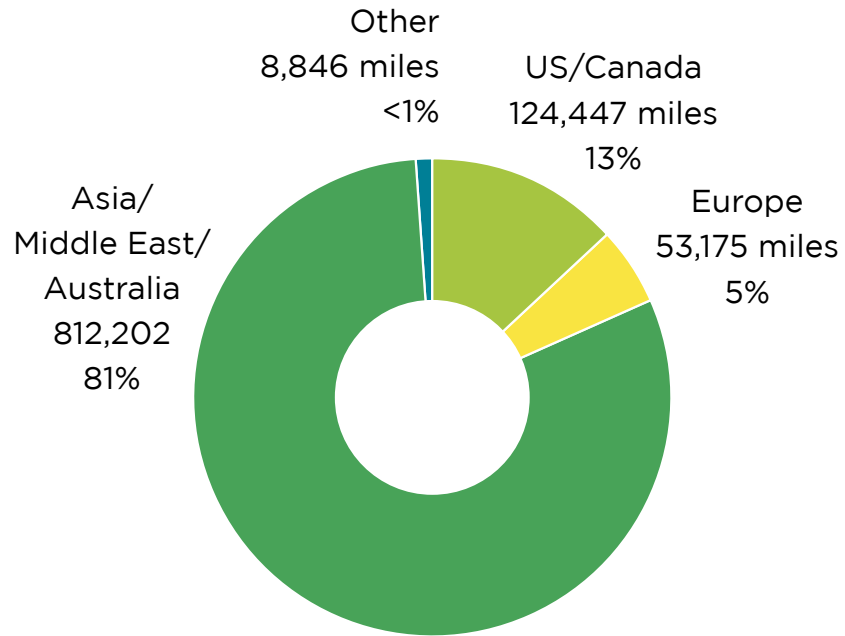
Employee Commuting

Personal Vehicle	0.08
Rail	0.43
Bus	0.04

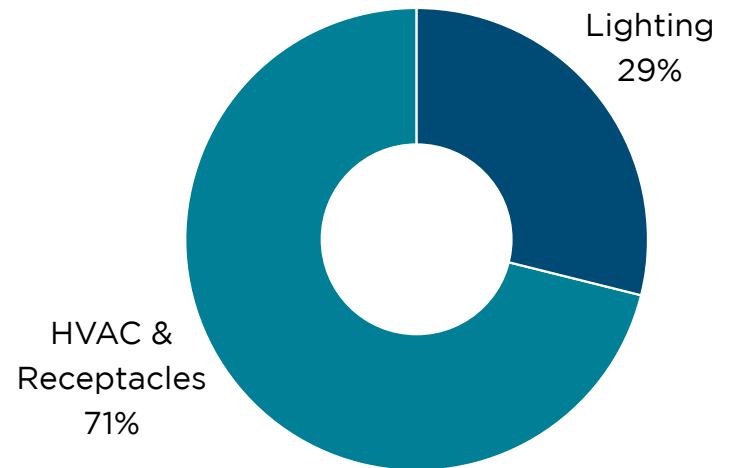
TOTAL METRIC TONS CO₂-E 379.5



FXFOWLE - 2008 Results



AIR TRAVEL



ELECTRICITY

Challenges

- Base building heating not in FXFOWLE's control
- Option 3 emissions for taxis, buses and other trains
- Fluctuations in staff/ economy
- Travel requirements at request of clients
- Costs for HVAC retrofit
- Changing staff habits!



Next Steps

- Expand boundary conditions to other offices.
- Investigate further opportunities for energy reductions.
- Communicate with landlord about benefits of initiative for base building energy use.



Questions/ Comments?



Ilana Judah
Director of Sustainability
FXFOWLE Architects LLP

ijudah@fxfowle.com
www.fxfowle.com