

## 5.2 CASE STUDY SCENARIOS FOR TRIAL RUNS

### New Bank Carbon Scenario

New Bank is a hypothetical bank with head office in a large city on the Eastern coast of Australia. The bank has strong customer base and about 24,000 employees. The bank is equipped with good Enterprise Resource Planning (ERP) software. This bank is perceived as a model bank by the Australian government. The bank is aware of the upcoming legislations regarding carbon emissions. The top management of the bank has incorporated Green IT as an integral part of business. The leaders believe that:

undertaking a transformation of the bank to a Green bank

putting in place environmental strategies that align **closely with the bank's business strategy.**

New bank plans to grow through acquisition. A well-known home loans vendor is in the process of being acquired.

There are approximately 650 branches across Australasian region.

The acquisitions are not evaluated for their carbon footprint at all.

The bank is already above the 150 kiloTonne carbon emission threshold, and is going to be required to report its carbon data to the government in the next few months.

Bank has recently appointed a chief green officer (CGO)

The bank maintains a fleet of approximately 300 cars— 50 of which are diesel engine cars.

**10% of the bank's car fleet is usually —hired through a large car rental company (Hybris).**

Fifteen percent of the employees need to travel by air to **manage the bank's business across all cities in Australia, New Zealand, the Asian region, and globally.** This averages out to approximately 5000 km per year per employee depending on the global economic climate, **bank's business and need for management.**

Following Is the Result of the Initial Green IT Audit Undertaken by the Bank.

### **Desktop Machines**

Numbers: 2 0,000

Value (current \$): \$1,200,000

Status: Most conventional PCs are between 2 and 3 years old

Emissions data (as a rough estimate based on spreadsheet): 1,777,500 watts per hour

Conventional =  $12,000 \times 110 \text{ w} = 1,320,000 \text{ w}$

Laptops =  $7,500 \times 60 \text{ w} = 450,000 \text{ w}$

Thin clients =  $500 \times 15 \text{ w} = 7500 \text{ w}$

### **Mobile Devices**

Numbers: 26,000

Value (current \$): \$250,000

Status: 2.5 years

Emissions data (estimate):  $10 \text{ w per day} \times 26,000 = 260,000 \text{ watts per day}$

### **Printers and Peripherals**

Numbers (total across the organization): 1000

Value (current \$): 500,000

Status (how old/new, etc.): average age 4 years

Emissions data: could not be estimated during the Green IT audit

### **Data Centre IT and Communication Equipment**

Numbers (total across the organization):  $12 + 4 = 16$

Value (current \$): N/A

Status (how old/new, etc.): 2-year old equipment

Emissions data (if available—or estimate):  $16 \times 0.5 \text{ kW} \times 24 = 192 \text{ kw per day}$

## Network Devices; Routers

10 devices, 50 routers and 20 switches

**Challenge: Apply Green IT strategies to New Bank to transition it to a green bank—with stated goals of 10% carbon reduction over every previous year for 3 years.**

## Bluewaters Travel Agency Carbon Scenario

Bluewaters is a small to medium travel agency operating out of New York. The company has an excellent, elite client base. The company is well-controlled and well-managed single-owner enterprise with approximately 25 employees. At any one time, the company has about eight computers running, together with associated paraphernalia. In addition, there are copiers, faxes, and shredders in the main office. Some employees do **occasional telework, especially when they don't have** to face a client.

## OpenAir Airline Carbon Scenario

OpenAir is a medium, regional airline operating out of the Asian region. The airline has been vulnerable to oil costs during most of its operation. However, with improved opportunities to fly to further destinations than the local region comes the challenge of controlling, reporting, and reducing the carbon footprint. Following are the notes based on an initial investigation commissioned by the corporate board of OpenAir, in the context of carbon emissions: Economic viability of OpenAir is no longer independent of its carbon footprint. Passengers are expecting a much greater role from OpenAir in

terms of carbon reduction than merely offering carbon off sets to passengers, especially as it expands beyond the Asian region.

While electronic ticketing and check in has been introduced with some success, the board sees a need for mobile ticketing and check in. IT as well as carbon costs for introduction of mobile technologies has not been carefully estimated. Need for sophisticated IT systems on the rise, especially in supporting the growth in passenger travels, **especially in the business market.** **A e airline** has also been launching new products that are based around premium economy seats, luggage-free, or slow-luggage flights, choices of food and beverage on long flights, and so on. The IT support for these processes required substantial changes to the data centre hardware, operating systems, and the applications themselves. There are still, however, many nonstandard IT systems that are not integrated with each other. Fuel efficiency metrics are not tied to carbon metrics. Scheduling of flights, variations to those schedules, and rostering of staff (pilots, stewards) is not optimized. Besides, there is practically no telework culture within the organization. There is some understanding within the organization about carbon emissions from airline fuel, but hardly any acknowledgment and understanding of internal IT emissions.

OpenAir has about 2000 desktop computers, 300 laptops provided by the organization to the employees, and unaccounted **mobile devices.** **There is a single** data centre catering to all the IT systems requirements, with a non-real time off site backup that is **a major risks to the airline's** business.