

GREEN INFORMATION TECHNOLOGY PLAN STATUS REPORT

City of San José – Smart Cities and Service Improvements Committee – June 2, 2022



Presented by:

Khaled Tawfik, Chief Information Officer, Information Technology Department

Ed Kim, Deputy Chief Information Officer, Information Technology Department

Glen Reyes, Enterprise Systems Technology Analyst, Information Technology Department

The Nine Strategies of Climate Smart **SAN JOSE**



Pillar 1

A Sustainable &
Climate Smart City

Pillar 2

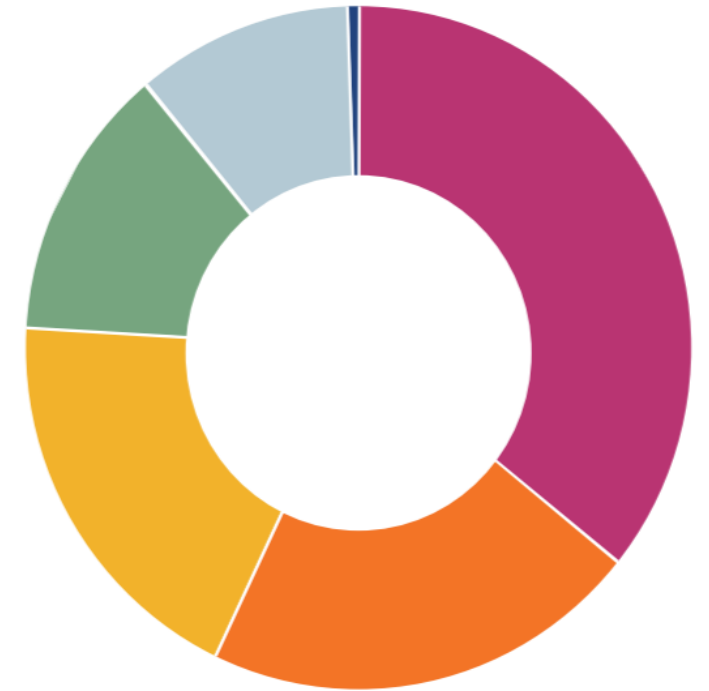
A Vibrant City of
Connected &
Focused Growth

Pillar 3

An Economically
Inclusive City of
Opportunity

The “Why” Green Technology Impact

San Jose 2018 Municipal
Operations GHG Emissions
Breakdown Report:



Employee Commute / Buildings and
Facilities make up 41% of GHG
emissions

The “What”

Green Technology Goals



Reduce Equipment
Carbon Impact



Reduce Print
Consumables



Reduce e-Waste



Reduce Commute
Carbon Impact

The “How”

Technology Initiatives



Cloud Based
Computing



Device Consolidation
Per Employee



Reduce Paper Printouts
and Paper Copies



Employ e-Waste
Handling Practices

Green Technology Goals



Reduce
Equipment
Carbon Impact

Server Reduction

Cloud Telephony

Cloud Storage



Reduce
e-Waste

Server
Consolidation

1:1 Device to
Employee



Reduce Print
Consumables

MFD
Replacement

Digital Print/Fax/Scan

Digital Forms



Reduce
Commute
Carbon Impact

Laptop Device
Standard

Standard Laptop
Distribution

Cloud Based Computing



Server Reduction and Consolidation

- Annual power saved: ~1,504,530 kWh
- CO² metric tons: ~1,066
- Homes powered for one year: 140



Cloud Telephony

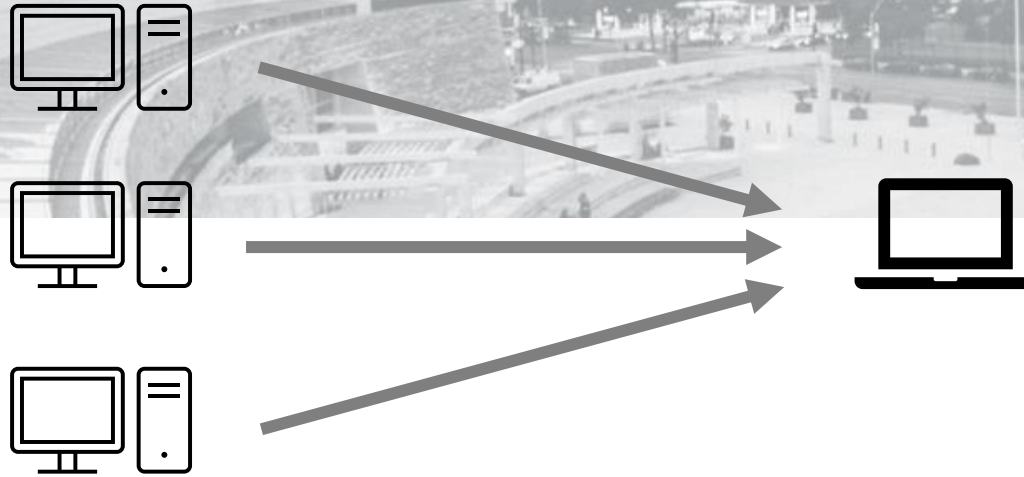
- Annual power saved: ~173,448 kWh
- CO² metric tons: ~123
- Homes powered for one year: ~16



Cloud Storage

- Rack space reduced: 95%

Device Consolidation Per Employee



Legacy Device Replacement

- 500 devices recycled or replaced with laptops

Maintain 1:1 Device to Employee Ratio

- 1.32 device reduction per employee
- Annual power saved: ~468,356 kWh
- CO² metric tons: ~332
- Homes powered for one year: 43

Mobile Laptop Standards

- Standard laptop issue (vs desktop)
- EnergyStar rated
- Supports hybrid work model (less commute time)

Reduce Paper Printouts and Paper Copies

MFD Replacements

- Reduce annual costs ~\$500K through lease and consumables
- Secured printing
- Reduced tree consumption by ~470
- EnergyStar rating EPEAT GOLD

Digital Print / Fax / Scan

- Scan direct to digital transit
- ~21% reduction of paper

Digital Forms

- Convert 54 existing paper forms
- Online forms and e-approvals
- Paper reduction since 2020: ~90564



Employ E-waste Handling Processes

E-waste - used electronics that are nearing the end of their useful life, have heavy metal components that can be toxic, and need to be discarded

Source Reduction

Reuse

Recycle

Green Technology

Total Impact



Reduce Equipment Carbon Impact

- Annual power reduction ~2,557,818 kWh ↓
- Equivalent to ~238 homes powered annually
- Total CO² emissions: 1,813 metric tons ↓



Reduce Print Consumables

- \$500,000 saved annually
- 25% ↓ of total wood and consumables
- Over 1 million print jobs saved annual



Reduce e-Waste

- Core equipment reduced qty 44% ↓
- End user equipment reduced qty 12% ↓
- Repurpose surplus equipment for reuse
- Recycling best practices



Reduce Commute Carbon Impact

- 1.08:1 device to employee ratio
- EnergyStar laptop standard issue
- Mobile-ready technology

Green Technology Teams



An aerial photograph of a city, likely Los Angeles, showing a multi-lane highway in the foreground and a dense urban landscape with various buildings in the background. The image is partially covered by a blue and green geometric overlay on the right side.

Questions and Feedback?