

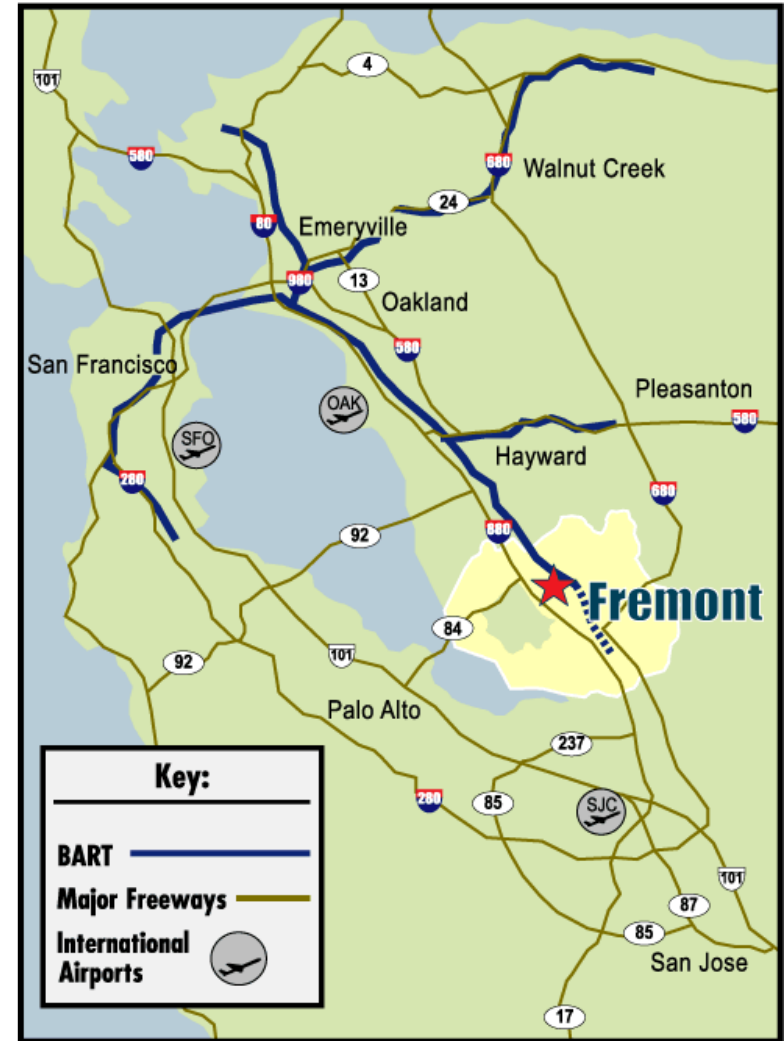
7 Habits of Highly Effective Municipal Sustainability Professionals

Examples from



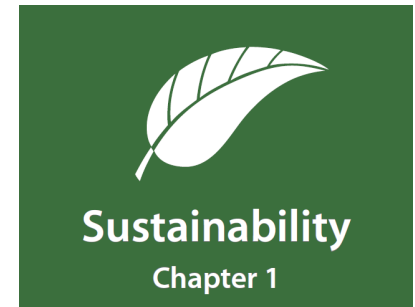
About Fremont, CA

- Located in Alameda County
- Incorporated in 1956
- Historic farmland → car-oriented suburb
- Current population of 232,206
- 4th largest City in Bay Area
- 92 sq. mi.
- Fiscally conservative

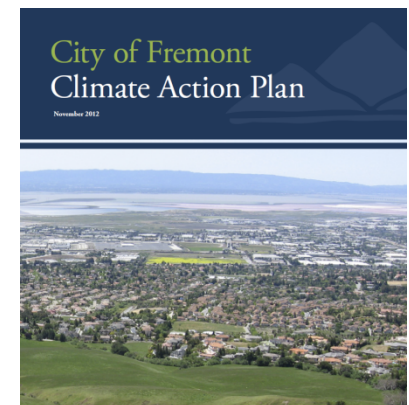


Fremont's Sustainability Vision

- General Plan (December 2011)
 - *Sustainability Element* as 1st Chapter
 - Fremont to “serve as a national model of how an auto-oriented suburb can evolve into a sustainable, strategically urban, modern city.”
- Climate Action Plan (November 2012)
 - Roadmap for reducing the City's GHG emissions 25% by 2020 from a 2005 baseline.



City of Fremont
General Plan
Adopted December 2011



Project Example: Solar PV Carports

- R-REP: 4 Counties, 19 public agencies, 31 MW capacity
- Alameda County led process
- 4 Fremont sites: 1.5MW



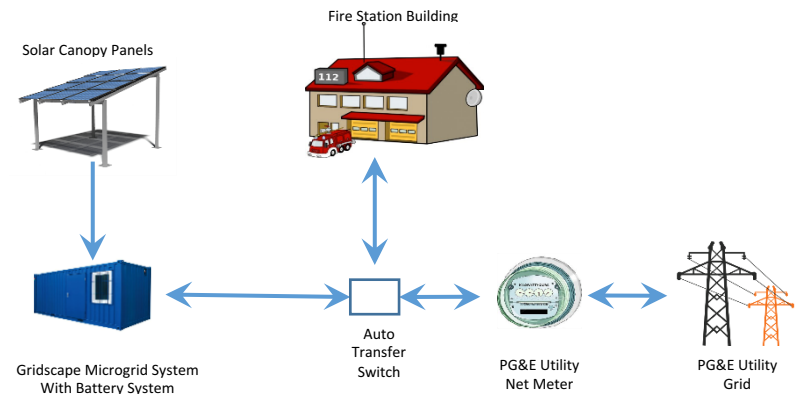
Project Example: Comprehensive Energy & Water Savings Project

- \$9.1M project:
 - LED street, park and facility lighting
 - High efficiency plumbing fixtures
 - Weather-based irrigation at city parks
 - Energy-saving pool pump controls at Water Park



Project Example: Fire Stations Microgrid Demonstration Project

- \$1.8M CEC Grant to Gridscape Solutions to demonstrate Low-Carbon Microgrid for Critical Facilities
- Solar + Battery + Microgrid Controller on 3 Fire Stations
- Demonstration Period to CEC followed by 10-year PPA
- Systems provide minimum 3 hour islanding from grid plus clean energy generation & energy demand reduction



Project Example: Fremont “Kilowatt Smackdown” Competition

- High school student-led competition to promote green business & efficiency
- 481 energy & water assessments completed within 7 weeks
- Business savings reports and referrals to Rebates & Bay Area Green Business Program
- Student scholarship prizes & Tesla donated apparel

Kilowatt
SMACKDOWN



GREEN IMPACT
CAMPAIGN



The Seven Habits—Lessons from Successful Projects

1. Be Thrifty
2. Be Opportunistic
3. Leverage Internal Support
4. Show Courage
5. Do the Heavy Lifting
6. Market, Market, Market
7. Be Patient and Persevere

1. Be Thrifty

JUST ADD SAVINGS!



- General Fund \$\$\$ untouched
- Tap into grant & incentive programs
- Utility bill & maintenance savings pay for upfront costs over time
- Financing arrangements:
 - Power Purchase Agreements
 - 0% On-Bill Financing
 - 2% Lease Financing
- Cash flow positive from Year 1



2. Be Opportunistic

- Leverage efforts by other organizations
(RREP, Microgrid)
- Tap into enthusiasm of young people
(kilowatt smackdown)
- Provide solutions for organizational problems
(win/win)



3. Leverage Internal Support

WIN-WIN-WIN-WIN-WIN

- Covered carports to protect City fleet vehicles
- Longer equipment life with less maintenance
- Reduced operational costs = more budget for other projects
- Improved resilience of critical facilities
- Support of public-private partnerships



3. Leverage Internal Support (cont.)

RECOGNIZING ALLIES AS ENABLERS

- City Attorney
- Building Maintenance Manager
- Police Chief
- Public Works Director
- Finance Director
- Economic Development Dept
- Fire Chief



4. Show Courage

OTHER DUTIES AS ASSIGNED...

- “Public Works” type projects
+ Managed by Sustainability Team
= Achieve sustainability goals:
- Solar = 500 MTCO₂; 2.3M kWh
 - ESCO = 976 MTCO₂; 4.7M kWh, 8.7M gal H₂O, 12K therms
 - Microgrid = 35 MT CO₂; resilience for critical facilities
 - Smackdown = 3.2M kWh; 630K gal H₂O; 481 businesses



5. Do the Heavy Lifting

- If it's not clear who should do it, you might need to do it or the project won't happen
- Examples
 - RFQ/RFP / Contract / SOW
 - Staff Report / Resolution
 - Day-to-day Coordination
 - Change Orders / Inspections
 - Invoicing / Tracking

**WELL ITS NOT
GOING TO LIFT
ITSELF**



6. Market, Market, Market

- Sustainability projects generate positive publicity and community interest
- Positive publicity builds internal support



7. Be Patient and Persevere

IT'S A LONG AND WINDING ROAD...

- Projects can take LONG TIME
- At any time, you may experience:
 - City staff &/or contractor transitions
 - Increases or decreases in project costs
 - Technology advancements
 - Grant/financing availability
 - Challenges with designs & permits
 - Priority shifts from key departments
 - Council turnover
 - Budget constraints





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