



AD HOC COMMITTEE ON SUSTAINABILITY

July 23, 2018

12:30 P.M.

651 Pine Street, Room 101, Martinez

Supervisor John Gioia, Chair

Supervisor Federal D. Glover, Vice Chair

Agenda Items:

Items may be taken out of order based on the business of the day and preference of the Committee

1. Introductions/Roll Call
2. Public comment on any item under the jurisdiction of the Committee and not on this agenda (speakers may be limited to three minutes).
3. **APPROVE Record of Action from the May 7, 2018, meeting of the Ad Hoc Committee on Sustainability.**
4. **DISCUSS opportunities to leverage the Idle Free Pledge to reduce greenhouse gas emissions in Contra Costa County, and PROVIDE DIRECTION as appropriate.**
5. **CONSIDER recommendation from Sustainability Commission to include support for a Carbon Fee & Dividend in the County's Federal legislative platform.**
6. **RECEIVE UPDATE on Renewable Resource Potential Study.**
7. **RECEIVE REPORT from Sustainability Commission Chair.**
8. **RECEIVE REPORT from County Sustainability Coordinator.**
9. The next meeting is currently scheduled for Monday, September 24, 2018.
10. Adjourn

The Ad Hoc Committee on Sustainability will provide reasonable accommodations for persons with disabilities planning to attend Ad Hoc Committee on Sustainability meetings. Contact the staff person listed below at least 72 hours before the meeting. Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the County to a majority of members of the Ad Hoc Committee on Sustainability less than 96 hours prior to that meeting are available for public inspection at 651 Pine Street, 1st floor, during normal business hours. Public comment may be submitted via electronic mail on agenda items at least one full work day prior to the published meeting time.

Glossary of Acronyms, Abbreviations, and other Terms (in alphabetical order): Contra Costa County has a policy of making limited use of acronyms, abbreviations, and industry-specific language in meetings of its Board of Supervisors and Committees. Following is a list of commonly used abbreviations that may appear in presentations and written materials at meetings of the Ad Hoc Sustainability Committee:

AB Assembly Bill
ABAG Association of Bay Area Governments
ACA Assembly Constitutional Amendment
ADA Americans with Disabilities Act of 1990
BAAQMD Bay Area Air Quality Management District
BART Bay Area Rapid Transit District
BAYREN Bay Area Regional Energy Network
BCDC Bay Conservation & Development Commission
BDCP Bay-Delta Conservation Plan
BGO Better Government Ordinance (Contra Costa County)
BOS Board of Supervisors
CALTRANS California Department of Transportation
CARB California Air Resources Board
CAO County Administrative Officer or Office
CAP Climate Action Plan
CCA Community Choice
CCTA Contra Costa Transportation Authority
CCWD Contra Costa Water District
CDBG Community Development Block Grant
CEC California Energy Commission
CEQA California Environmental Quality Act
CPUC California Public Utilities Commission
CSA County Service Area
CSAC California State Association of Counties
DCD Contra Costa County Dept. of Conservation & Development
EBEW East Bay Energy Watch
EBMUD East Bay Municipal Utility District
EIR Environmental Impact Report (a state requirement)
EIS Environmental Impact Statement (a federal requirement)
FEMA Federal Emergency Management Agency
FTE Full Time Equivalent
FY Fiscal Year
GGRF Greenhouse Gas Reduction Funds
GHG Greenhouse Gas
GIS Geographic Information System
HOT High-Occupancy/Toll
HOV High-Occupancy-Vehicle
HSD Contra Costa County Health Services Department
IPM Integrated Pest Management
JPA/JEPA Joint (Exercise of) Powers Authority or Agreement
LAFCo Local Agency Formation Commission
LCC League of California Cities
LTMS Long-Term Management Strategy
MAC Municipal Advisory Council
MBE Minority Business Enterprise
MOA Memorandum of Agreement
MOE Maintenance of Effort
MOU Memorandum of Understanding
MTC Metropolitan Transportation Commission
NACo National Association of Counties
NEPA National Environmental Protection Act
PDA Priority Development Area
PV Photovoltaic
PWD Contra Costa County Public Works Department
RDA Redevelopment Agency or Area
RFI Request For Information
RFP Request For Proposals
RFQ Request For Qualifications
SB Senate Bill
SBE Small Business Enterprise
SGC Strategic Growth Council
TWIC Transportation, Water, and Infrastructure Committee
U.S. EPA United States Environmental Protection Agency
VMT Vehicle Miles Travel
WBE Women-Owned Business Enterprise

For Additional Information Contact: Jody London, Sustainability Coordinator
Phone: (925) 674-7871 / Jody.London@dcd.cccounty.us



Contra Costa County Board of Supervisors

Subcommittee Report

AD HOC COMMITTEE ON SUSTAINABILITY

3.

Meeting Date: 07/23/2018

Subject: APPROVE Record of Action from the May 7, 2018, meeting of the Ad Hoc Committee on Sustainability.

Submitted For: Jody London, Sustainability Coordinator

Department: Conservation & Development

Referral No.:

Referral Name: APPROVE Record of Action from the May 7, 2018, meeting of the Ad Hoc Committee on Sustainability.

Presenter: Jody London, DCD

Contact: Jody London (925) 674-7871

Referral History:

Referral Update:

Recommendation(s)/Next Step(s):

Attachments

5-7-18 AHCOS Mtg Min.



Agenda

Record of Action AD HOC COMMITTEE ON SUSTAINABILITY

May 7, 2018
12:30 P.M.

651 Pine Street, Room 101, Martinez

Supervisor John Gioia, Chair
Supervisor Federal D. Glover, Vice Chair

Agenda Items:

Items may be taken out of order based on the business of the day and preference of the Committee

Present: John Gioia, Chair

Absent: Federal D. Glover, Vice Chair

Staff Present: Frank DiMassa, Energy Manager

Michael Kent, Hazardous Materials Ombudsman

John Kopchik, Director, Dept of Conservation and Development

Will Nelson, Advance Planner, Dept of Conservation and Development

Francisco Avila, Planner, Dept of Conservation and Development

Jason Crapo, Deputy Director, Dept of Conservation and Development

Attendees: Pierre Bull

Victoria Smith

Nick Despota

1. Introductions
2. Staff recommends approval of the attached Record of Action for the March 26, 2018, meeting of the Ad Hoc Committee on Sustainability with any necessary corrections.

The Record of Action was approved.

3. Public comment on any item under the jurisdiction of the Committee and not on this agenda (speakers may be limited to three minutes).

There was no public comment.

4. INTERVIEW candidates for the At-Large, Education/Research seat on the Contra Costa County Sustainability Commission.

The Committee interviewed three applicants for the At-Large, Education/Research seat on the Sustainability Commission: Susan Rideout, Kimberly Hazard, and Pierre Bull. (Ms. Rideout and Ms. Hazard participated by phone.)

5. PROVIDE DIRECTION to staff regarding development of a Distributed Energy Resource Plan for County facilities.

Frank DiMassa, Energy Manager in the Department of Public Works, reviewed the elements of a Distributed Energy Resources (DER) plan for County facilities. The plan will include solar photovoltaics and energy efficiency. It will look at a pilot for a Zero Net Energy facility. It will include increased use of electric vehicles by County employees and in County fleet and installation of electric vehicle chargers at County facilities, both for employees and the public. The DER plan will identify sites appropriate for energy storage as well as sites that are good candidates for automated demand response (curtailed energy use during periods of high electricity demand).

6. CONSIDER staff report on strategies for reducing greenhouse gas emissions associated with warehouse facilities in the unincorporated County and PROVIDE DIRECTION.

John Kopchik, Director, Department of Conservation and Development, described new conditions of approval for new warehouse facilities being proposed in North Richmond. These conditions will mitigate emissions from the operations of these facilities by requiring low-emission or electric vehicles, electrified loading docks, sound walls and/or vegetation to block diesel emissions, no idling, and other measures. The conditions also call for the installation of solar energy on warehouse rooftops. Kopchik recommends that the policy behind these conditions be incorporated into the County General Plan, which is in the process of being updated. Will Nelson and Francisco Avila, planners in the Department of Conservation and Development, outlined other considerations that could inform a new policy on warehouse approvals. The staff recommends that these new conditions be incorporated into the Land Use Element as an amendment, because the General Plan update will not be complete until 2020. The Committee directed staff to bring this report back to the Committee and then to the full Board as a consent item.

7. DISCUSS and RECOMMEND to the Board of Supervisors candidates for the At-Large, Education/Research seat on the Contra Costa County Sustainability Commission.

The Committee recommends Kim Hazard be recommended to the Board of Supervisors for this position.

8. RECEIVE report from the Contra Costa County Sustainability Commission Chair.

Victoria Smith provided an overview of the Sustainability Commission's April 23 meeting, which included an update from MCE and an overview of the North Richmond Urban Greening Project. Smith noted that the Sustainability Commission will be holding a retreat over the summer. Commission members are starting to find projects in which they are interested. Howdy Goudey, Vice-Chair of the Sustainability Commission, reported that he has been working with staff from the County Library to host a Fix-it Clinic on June 9 at the El Cerrito Library.

9. RECEIVE update from the County's Sustainability Coordinator.

Jody London, County Sustainability Coordinator, provided an update on work to support the County's Climate Action Plan since the last Committee meeting. This includes working on the Renewable Resource Potential Study, coordinating with the Contra Costa Transportation Authority on grant applications to support development of an electric vehicle readiness plan, supporting the Sustainability Commission, coordinating with several cities and Sustainable Contra Costa on a grant application through the Bay Area Air Quality Management District Climate Protection Grant, participating in Earth Day events, and gathering information to inform a Countywide message on sustainability.

10. The next meeting is currently scheduled for July 23, 2018, 12:30 PM.

11. Adjourn

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For Additional Information Contact:

Jody London, Sustainability Coordinator
Phone: (925) 674-7871
Jody.London@dcd.cccounty.us



Contra Costa County Board of Supervisors

Subcommittee Report

AD HOC COMMITTEE ON SUSTAINABILITY

4.

Meeting Date: 07/23/2018

Subject: DISCUSS opportunities to leverage the Idle Free Pledge to reduce greenhouse gas emissions in Contra Costa County and PROVIDE DIRECTION as appropriate.

Submitted For: Jody London, Sustainability Coordinator

Department: Conservation & Development

Referral No.:

Referral Name: DISCUSS opportunities to leverage the Idle Free Pledge to reduce greenhouse gas emissions in Contra Costa County and PROVIDE DIRECTION as appropriate.

Presenter: Jody London, DCD

Contact: Jody London (925) 674-7871

Referral History:

On March 26, 2018, the Ad Hoc Committee on Sustainability received a presentation from students in the Public Health Academy at Alhambra High School on implementation of the Idle Free Pledge in Contra Costa County. The Ad Hoc Committee on Sustainability referred the presentation to the Board of Supervisors, where the students provided the same presentation on April 24, 2018. The presentation included several recommendations for the County.

Referral Update:

The Alhambra High School students provided several recommendations to the County to encourage greater participation in the Idle Free campaign:

- Post idle free signs at County offices,
- More direct messaging to County employees,
- Idle Free stickers in County fleet vehicles, and
- Consider policy that prohibits idling in County vehicles.

The students also identified actions they are considering taking:

- Approach Shell to promote Idle Free Pledge to employees - Promote idle free actions at gas stations.
- Approach DMV and ask to promote idle free actions to drivers - Highlight in DMV offices to employees, as well as drivers.

Supervisor Gioia recommended that staff consult with Idle Free California, a statewide organization that raises awareness of the impact of vehicle idling and educates the public about driving practices that are less harmful to the environment. Idle Free California has provided

information on how other jurisdictions are implementing Idle Free campaigns as well as suggestions on how the County can increase awareness of and participation in the Idle Free campaign (see attached). These include ways to motivate behavior change, technology and vehicle mandates that facilitate idle free driving, and sample ordinances and policies.

Recommendation(s)/Next Step(s):

DISCUSS opportunities to leverage the Idle Free Pledge to reduce greenhouse gas emissions in Contra Costa County, and PROVIDE DIRECTION, as appropriate.

Fiscal Impact (if any):

None at this time.

Attachments

Idle California Suggestions



Wayne Michaud, Executive Director, Idle-Free California Inc.
6900 Navarro Court, Citrus Heights, CA 95621
idlefreecalifornia.org • info@idlefreecalifornia.org • 707-548-1619

Contra Costa County Idle-Free Board of Supervisors Ad Hoc Committee on Sustainability meeting July 23, 2018

CONTRA COSTA COUNTY ACCOMPLISHMENTS

Contra Costa County is a California standout on awareness of the impact of idling and low-hanging fruit benefits in reducing its emissions from motor vehicles.

- Contra Costa County officials sign on to Idle Free Pledge - April 25, 2017
http://www.baagmd.gov/~media/files/communications-and-outreach/publications/news-releases/2017/idle_170425-pdf.pdf?la=en
- CONTRA COSTA COUNTY Resolution
http://64.166.146.245/docs/2017/BOS/20170425_902/29390_BO_BayAreaAirQualityManagementDistrictIdleFreePledge.pdf

IDLE-FREE PROCLAMATIONS & ACTIONS:

Cities:

- Martinez
- Antioch

Schools:

- Martinez Unified School District resolution limiting idling
- Pittsburg Unified School District Idle-Free Schools campaigns
- Walnut Creek School District proclamation

WEBPAGE: Contra Costa 511: When is idling wasteful? <https://511contracosta.org/when-is-idling-wasteful/> (update Hinkle Charitable Foundation link: <https://www.thehcf.org/antiidling/>)

Spare the Air Resource Team participation: Contra Costa County #1 on idle-free

Recommendations from Alhambra High School Public Health Academy to Board of Supervisors:

- Post Idle Free signs at County offices,
- More direct messaging to County employees
- Idle Free stickers in County cars
- Consider policy that prohibits idling in County cars

SUGGESTIONS FROM IDLE-FREE CALIFORNIA

Ways to increase awareness

- Other cities in California have adopted anti-idling ordinances (listing below); Contra Costa County cities should consider doing the same
- Idle information rack cards in Contra Costa County's four DMV locations (**samples**)
- VIDEO: East Bay Clean Cities: *To Idle or Not to Idle* (disseminate!)
<https://www.youtube.com/watch?v=PTbJrEbxs64&feature=youtu.be>
- SCHOOLS #1: Increase awareness at schools (especially middle schools) by working with science, STEM, math, environmental and health teachers to implement long-term, student-led idle-free studies/campaigns.
Resource: <http://idlefreecalifornia.org/california-idle-free-schools.html>
- SCHOOLS #2: all school districts should promote ACR-160 resolution
https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160ACR160
- Anti-idling signs posted at County facilities and operations. Sign design example: Spare the Air bilingual sign
https://idlefreebayarea.files.wordpress.com/2017/08/idlefree_parkingspeng.jpg
- Contra Costa 511: When is idling wasteful?: Suggest adding language avoiding drive-thrus: park and walk into place of business, or turn off engine at pick up window (save gas, engine wear, keep emissions away from attendant)
- Healthcare facilities: policy to reduce emissions during construction
<https://www.publicnewsservice.org/2017-12-07/energy-policy/nc-hospitals-offer-breath-of-fresh-air-literally/a60538-1>

ADDITIONAL SUGGESTION

- Clean Cities IdleBox Toolkit: IdleBox is an electronic education and outreach toolkit on vehicle idling reduction. The low-hanging fruit of fuel economy, idling reduction is a simple way to use less fuel and to reduce pollution and greenhouse gases. Add as resource to Contra Costa 511 webpage.
<https://cleancities.energy.gov/technical-assistance/idlebox/>

IDLE-REDUCTION TECHNOLOGY

Opportunities - especially Police/EMS vehicles. U.S. Department of Energy Alternative Fuels Data Center IRT companies:

[https://www.afdc.energy.gov/fuels/related/Idle Reduction](https://www.afdc.energy.gov/fuels/related/Idle%20Reduction)

- Contra Costa County Police Depts. - 21

<https://cchealth.org/ems/participants-law.php>

If average of each PD is 10 police vehicles idling for 8 hours/day @ .4 gallons of fuel consumed/hr. (conservative), the 210 vehicles consume 700 gallons a day, 250,000 gallons*/2,500 tons CO₂/yr. IRT can cut in half.

*250,000 gallons fuel @ \$3/gal. = \$750,000/yr.

- Alameda County Sheriff's Dept. utilizes IRT on patrol vehicles

<http://www.policemag.com/channel/vehicles/news/2013/08/16/calif-s-sheriff-using-idle-reduction-systems-on-patrol-vehicles.aspx>

- Contra Costa County Health Centers/Clinic/Regional Medical Center - 10-11

<https://cchealth.org/centers-clinics/>

Opportunities to eliminate ambulance/EMS idling at facilities with installation of anti-idling kiosks

<http://www.medicare.net/>

Example impact one ambulance: California diesel \$3.95/gal

ambulance = 0.75 gal. fuel consumed per hour

x 1,400 call-outs @ 30 minutes each @ \$3.95/gal = 700 gallons (5+ tons CO₂) @ \$2,073 annually (not including engine maintenance/wear factors; idling places ghost miles on engine)

- Contra Costa County Senior Centers - 20+

Medium-duty vehicles serving these facilities must meet comfort needs of seniors.

Opportunities for installation of anti-idling APU/HVAC units

- Contra Costa County Fire Stations - 40?

- Redmond, WA: Apparatus Idle-Reduction Technology Saves Lives and Money

<https://www.firehouse.com/apparatus/components/engines/article/12317024/apparatus-idlereduction-technology-saves-lives-and-money>

- IRT Engineered Specifically for the Fire Service: Rosenbauer Green Star IRT

<http://www.rosenbaueramerica.com/features/green-star-irt>

EXISTING IDLE REDUCTION MODELS FROM OTHER JURISDICTIONS THAT INCLUDE LIGHT-DUTY VEHICLES – ORDINANCES OR POLICIES:

Cities:

California:

- Santa Cruz: Anti-Idling Ordinance
<http://www.cityofsantacruz.com/home/showdocument?id=42417>
- Santa Barbara: Anti-Idling Ordinance 10.48.095 Idling of Parked Vehicles: (p. 252)
<https://www.santabarbaraca.gov/civicax/filebank/blobdload.aspx?BlobID=12162>
- Palo Alto: Anti-Idling Ordinance - city council will vote after summer break. Report:
<https://www.cityofpaloalto.org/civicax/filebank/documents/65306>
- City of Berkeley: Anti-Idling Ordinance under consideration (however in current form exempts passenger vehicles)
https://www.cityofberkeley.info/uploadedFiles/Council_3/Level_3_-_General/Anti-Idling_Ordinance.pdf

Cities in other Western states:

- Park City, UT
https://parkcity.municipalcodeonline.com/book?type=ordinances-name=9-10_Anti-Idling
- Cottonwood Heights, UT
<http://www.cottonwoodholladayjournal.com/2018/06/21/175555/no-more-idling-in-cottonwood-heights>
- Holladay, UT
http://www.cityofholladay.com/img/File/No_2013-03_Idling_of_Vehicles.pdf
- Eugene, OR - No Idling and No Top-off Policy
<https://www.eugene-or.gov/1296/No-Idle-No-Top-Off>

CANADA

- Canada has about 75 city anti-idling bylaws
https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/oeefiles/transport/idling/excel/Step_4_Resources_-_Idling_Control_Bylaws_Across_Canada-EN.xls
- Vancouver, BC bylaw and campaign
<https://vancouver.ca/streets-transportation/idling.aspx>

COUNTIES: County-level idle reduction measures (policies, rules, strategies, etc.) around U.S. Most aimed at county government vehicles:

- Pierce County, WA Fuel Reduction Strategy
<https://www.co.pierce.wa.us/DocumentCenter/View/24920/Pierce-County-Fuel-Reduction-Policy?bidId=>
- Johnson and Wyandotte Counties, KS Idling Reduction Rule
http://www.kdheks.gov/bar/download/idle_rule.pdf
- Cobb County, GA Vehicle Idling Reduction Strategies
<https://cobbcounty.org/images/documents/property-management/meassure37->

[reduction.pdf](#)

- Fulton County, GA No Idling Policy
<http://www.fultoncountyga.gov/latest-news/1875-fulton-county-fights-smog-with-no-idling-policy>
- Durham County, NC Idle Reduction Policy
<https://durhamnc.gov/DocumentCenter/View/944/Durham-County-Idle-Reduction-Policy-PDF?bidId=>

STATES: Seven U.S. states with all motor vehicle idling laws/regulations

- Connecticut
- Hawaii
- Massachusetts
- Maryland
- New Hampshire
- New Jersey
- Vermont



Contra Costa County Board of Supervisors

Subcommittee Report

AD HOC COMMITTEE ON SUSTAINABILITY

5.

Meeting Date: 07/23/2018

Subject: CONSIDER recommendation from Sustainability Commission to include support for a Carbon Fee & Dividend in the County's Federal legislative platform.

Submitted For: Jody London, Sustainability Coordinator

Department: Conservation & Development

Referral No.:

Referral Name: CONSIDER recommendation from Sustainability Commission to include support for a Carbon Fee & Dividend in the County's Federal legislative platform.

Presenter: Jody London, DCD

Contact: Jody London (925) 674-7871

Referral History:

Referral Update:

At the April 23, 2018, meeting of the Sustainability Commission (Commission), Michael Kent from the Citizens Climate Lobby addressed the Commission under Public Comment about the campaign for the United States to adopt a Carbon Fee and Dividend. At the June 25 meeting of the Sustainability Commission, Mr. Kent was provided time on the agenda to make a formal presentation and request that the Sustainability Commission recommend to the Board of Supervisors that support for a Carbon Fee and Dividend be included in the County's Federal legislative platform.

The Sustainability Commission voted 8-1 to recommend the County include support for a Carbon Fee and Dividend in the County's Federal legislative platform. The attached letter from the Commission provides more detail.

Recommendation(s)/Next Step(s):

Consider recommendation from the Sustainability Commission to include support for a Carbon Fee and Dividend in the County's Federal legislative platform.

Fiscal Impact (if any):

None.

Attachments

Sustainability Commission Letter re Carbon Fee and Dividend



**CONTRA COSTA COUNTY
SUSTAINABILITY COMMISSION**

An Advisory Body to the Board of Supervisors

30 Muir Road
Martinez, California 94553

July 16, 2018

The Honorable John Gioia and Federal Glover,
Contra Costa County Supervisors
Ad Hoc Sustainability Committee
651 Pine St.
Martinez, CA 94553

Dear Messrs. Gioia and Glover,

At its June 25th meeting, the Contra Costa Sustainability Commission voted to recommend to the Board of Supervisors that it support adoption of a national carbon fee and dividend (CF&D) in the County's Federal Legislative Platform.

The request for this recommendation was presented to the Sustainability Commission by members of the Contra Costa Chapter of the Citizens' Climate Lobby (CCL), a national organization. While our discussion considered the basic mechanism of CF&D, commissioners focused on the economic impact a carbon tax would have on low-income residents of our county. The advocates for the plan highlighted the progressive effect of distribution of 100% of the net revenue, and cited a study showing that most residents would receive more in dividends than they pay in rising costs.

The rationale for carbon pricing is well-established. A price on carbon corrects a massive market failure by incorporating the environmental and social costs of greenhouse gas emissions into the price of goods and services. Validating this economic tenet is the fact that 45 national and 25 sub-national jurisdictions now put a price on carbon, covering about 12% of global emissions.¹ The calls for carbon pricing are growing, both domestically² and abroad.

There are many approaches to carbon pricing. Why should Contra Costa County advocate for a carbon fee and dividend system? To answer that question, we reviewed CF&D's three core features:

- A national carbon tax, starting at a relatively low rate and increasing predictably and steadily over the years, is a market-based solution that sends a clear price signal to businesses to develop and use low- or no-carbon-based energy resources. The rising cost of carbon-intensive products and services also incentivizes consumers to choose "greener" alternatives.
- One-hundred percent of net fees are returned to households in equal shares as monthly dividends. Two-thirds of all Americans will break even or come out ahead, as their dividends match or exceed price increases due to the tax. (See attachment showing household impacts for U.S. Congressional District 11. Studies for other Congressional districts in our county are available.)

¹ Carbon Pricing Dashboard, The World Bank. <https://carbonpricingdashboard.worldbank.org/>

² "New Group, With Conservative Credentials, Plans Push for Carbon Tax," New York Times, June 19, 2018. <https://www.nytimes.com/2018/06/19/climate/carbon-tax-climate-change.html>

Lower-income households receive a proportionately greater benefit because they spend proportionately more on transportation, heating, and food.

- A border adjustment will level the playing field for American businesses and motivate other countries to establish their own carbon pricing. Import fees on products from countries without a carbon fee, along with rebates to US industries exporting to those countries, will discourage American firms from relocating.

A study conducted by a non-partisan economic modeling firm, Regional Economic Models, Inc. (REMI), predicted that during the first 20 years, the CF&D policy advocated by CCL would lead to a 50% reduction of carbon emissions below 1990 levels; the addition of 2.8 million jobs above baseline, driven by the economic stimulus; and the avoidance of 230,000 premature deaths due to reductions in air pollutants that accompany carbon emissions.³

These arguments have led 5 counties and 23 cities in California, and the State of California to pass resolutions endorsing a national revenue-neutral carbon tax. (See attachments.)

Our County's Climate Action Plan affirms the connection between local air quality and federal policy. Measure GO 5 (action item 5, bullet 2) calls on the County to "advocate for regional, state, and federal activities that support GHG emissions in the county, including adoption of language in the County's state and federal legislative platforms that directs support and lobbying for local GHG reductions."

These environmental, economic and health-related justifications for a revenue-neutral carbon tax are compelling. But we also recognize a valid objection to the CF&D plan: Rather than returning 100% of the revenue in equal share to all households, why not allocate portions for renewable energy development, assistance to those bearing the brunt of climate change impacts, and programs to help workers who will lose jobs in the transition to a low-carbon economy?

These are all worthy claims for public investment and assistance. One of the Commission members, who is also a member of the Citizens' Climate Lobby, states that political considerations argue against using revenue from carbon fees to address those legitimate needs. Consider the consequences of adopting policies that pick winners and losers ("Why stimulate solar but not biomass?"), or assists one group rather than another ("Why that refinery fence-line community but not our coastal town?"), or provides transitional training for some workers but not others ("Pipefitters but not electricians?").

The result would be a splintering of support for the carbon tax along partisan and geographic fault lines. Its passage and long-term survival require that the plan not "grow government" and lose broad public support by requiring costly regulatory apparatus, means-testing, and oversight.

For a plan to withstand political buffeting, its range of benefits must be distributed equally to all citizens—no matter where they live, how they make their living, who they vote for, or how they choose to spend their money.

For all of the reasons set forth here, a 7-1 majority of Sustainability Commission members recommend that the Ad Hoc Sustainability Committee place a motion before the Board of

³ For summary and full REMI report, see <https://citizensclimatelobby.org/remi-report/>

Supervisors supporting adoption of a revenue-neutral national carbon fee and dividend plan in the County's Federal Legislative Platform.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Howdy Goudey', written in a cursive style.

Howdy Goudey
Vice-Chair, Contra Costa Sustainability Commission



Citizens' Climate Lobby

What is Carbon Fee and Dividend?

Carbon Fee and Dividend is the policy proposal created by Citizens' Climate Lobby (CCL) to put a federal price on carbon-based fuels so that their consumer cost reflects their true costs to society.

It's the policy that both climate scientists and economists say is the best first-step to reduce the likelihood of catastrophic climate change from global warming.

Why Carbon Fee and Dividend?

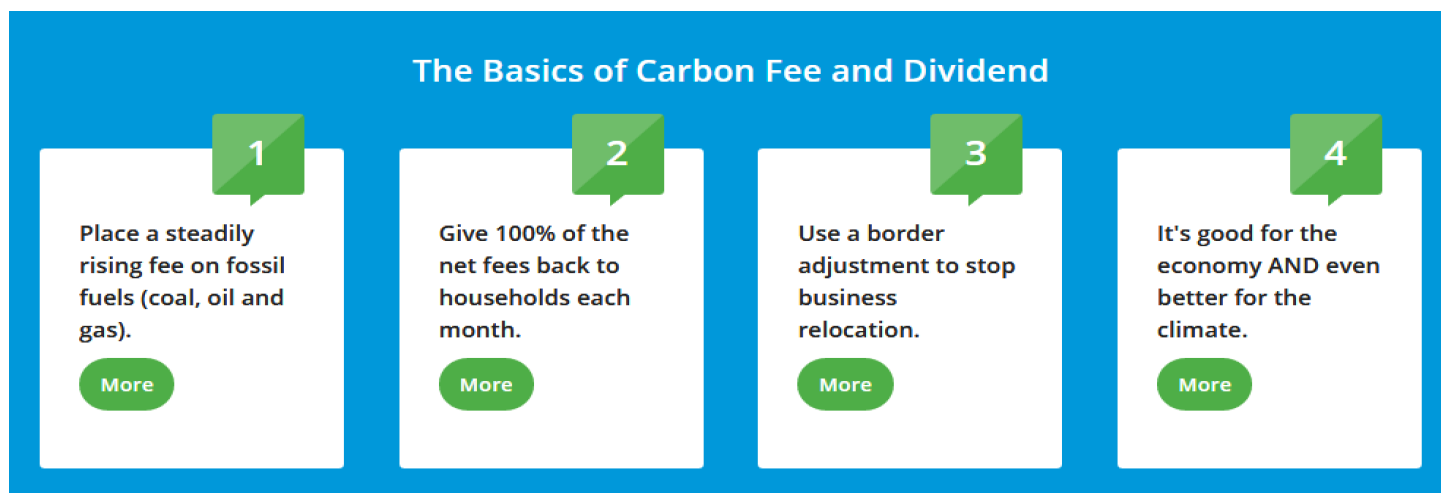
Currently, the price of fossil fuels does not reflect their true costs—including their impact on global climate. Correcting this market failure will require that their price account for the true social costs.

As long as fossil fuels remain artificially inexpensive, their use will rise. Correcting this market failure requires a federal price on carbon that accounts for their true costs.

What Will Carbon Fee and Dividend Do?

Carbon Fee and Dividend will do four things:

1. Account for the cost of burning fossil fuels in the price consumers pay.
2. Cut emissions enough to stay below the 2C threshold for "dangerous" warming.
3. Grow jobs and GDP without growing government one bit.
4. Recruit global participation.



citizensclimatelobby.org

The Text of the Carbon Fee and Dividend Proposal:

Therefore the following legislation is hereby enacted:

1. **Collection of Carbon Fees/Carbon Fee Trust Fund:** Upon enactment, impose a carbon fee on all fossil fuels and other greenhouse gases at the point where they first enter the economy. The fee shall be collected by the Treasury Department. The fee on that date shall be \$15 per ton of CO₂ equivalent emissions and result in equal charges for each ton of CO₂ equivalent emissions potential in each type of fuel or greenhouse gas. The Department of Energy shall propose and promulgate regulations setting forth CO₂ equivalent fees for other greenhouse gases including at a minimum methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons (HFCs), perfluorocarbons, and nitrogen trifluoride. The Treasury shall also collect the fees imposed upon the other greenhouse gases. 100% of the net revenues are to be placed in the Carbon Fees Trust Fund and be rebated to American households as outlined below.
2. **Methane Leakage:** Methane is a much more potent greenhouse gas than CO₂ with both direct and indirect effects contributing to warming. It is therefore important to place a fee on methane that leaks to the atmosphere. Some of this leakage will occur after the fee has been assessed on methane under the assumption that it will be burned to yield the less potent CO₂. To ensure the integrity of the program and that markets receive accurate information with regard to the climate forcings caused by various fossil fuels, the carbon fee shall be assessed on such leaked methane at a rate commensurate with the global warming potential ("GWP") of methane including both its direct and indirect effects. Given the importance of tipping points in the climate system, the 20-year GWP of methane shall be used to assess the fee, and not the 100-year GWP. As proper accounting for such leakage is necessary for honest assessment of progress towards program goals, reasonable steps to assess the rate of methane leakage shall be implemented, and leaked methane shall be priced accordingly. The entity responsible for the leaked methane shall be responsible for paying the fee.
3. **Emissions Reduction Targets:** To align US emissions with the physical constraints identified by the Intergovernmental Panel on Climate Change (IPCC) to avoid irreversible climate change, the yearly increase in carbon fees including other greenhouse gases, shall be at least \$10 per ton of CO₂ equivalent each year. Annually, the Department of Energy shall determine whether an increase larger than \$10 per ton per year is needed to achieve program goals. Yearly price increases of at least \$10 per year shall continue until total U.S. CO₂-equivalent emissions have been reduced to 10% of U.S. CO₂-equivalent emissions in 1990.
4. **Equal Per-Person Monthly Dividend Payments:** Equal monthly per-person dividend payments shall be made to all American households ($\frac{1}{2}$ payment per child under 18 years old, with a limit of 2 children per family) each month. The total value of all monthly dividend payments shall represent 100% of the total carbon fees collected per month less administrative costs.
5. **Border Adjustments:** In order to ensure that U.S.-made goods can remain competitive at home and abroad and to provide an additional incentive for international adoptions of carbon fees, Carbon-Fee-Equivalent Tariffs shall be charged for goods entering the U.S. from countries without comparable Carbon Fees/Carbon Pricing. Carbon-Fee-Equivalent Rebates shall be used to reduce the price of exports to such countries and to ensure that U.S. goods can remain competitive in those countries. The Department of Commerce will determine rebate amounts and exemptions if any.

More at citizensclimatelobby.org and citizensclimatelobby.org/remi-report



Citizens' Climate Lobby

Financial Impact on Households of Carbon Fee and Dividend Local Impacts in California - District 11

Introduction

This study on the impact to households of Carbon Fee and Dividend was funded to respond to concerns expressed by members of Congress that constituents in their district would not benefit under our proposal. Key to the concerns expressed was not only understanding how the average constituent did, but how different groups of constituents fared. Concern for low-income constituents, for instance, is common for members of both parties.

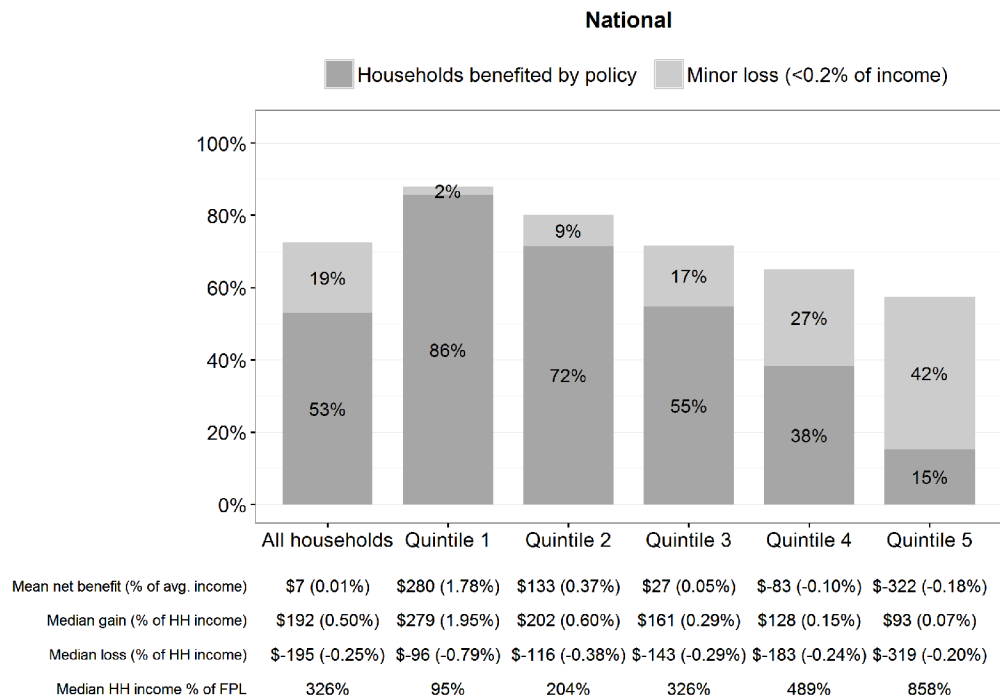


Figure 1: National Averages by Economic Quintile. Note that the three lowest-income quintiles show a benefit for the mean (average) household. The average net benefit for the lowest-income quintile is 1.78% of income, whereas households in the top quintile experience, on average, net losses that are a much smaller percentage of their total income, at just 0.18%.

All data is from the 2016 working paper, "Impact of CCL's proposed carbon fee and dividend policy: A high-resolution analysis of the financial effect on U.S. households" by Kevin Ummel, Research Scholar, Energy Program, International Institute for Applied Systems Analysis (IIASA).

Current working paper and summary available at <http://citizensclimatelobby.org/household-impact/>

California - Congressional district No. 11

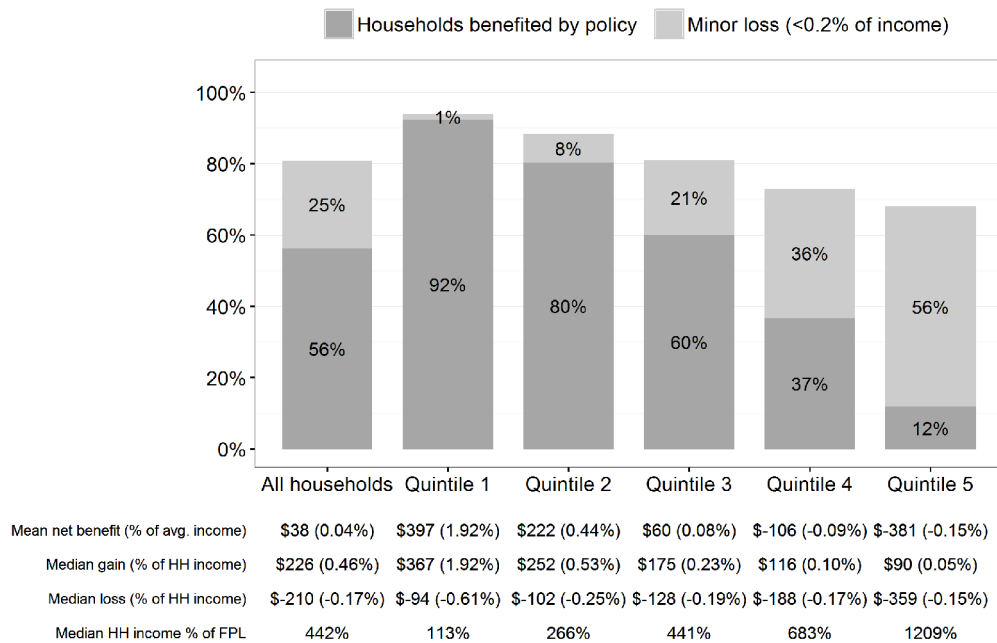


Figure 2: Impact by Quintile for California - District 11. Looking at the categories on the bottom of this graph, only the numbers for “Mean Net Benefit” and “Median HH income % of FPL” include all households in a given quintile (FPL = Federal Poverty Line). Only those households who receive a financial gain are included in calculating the “Median Gain” figures, and likewise, only those households which experience a loss are included in calculating the “Median Loss” figures.

California - Congressional district No. 11

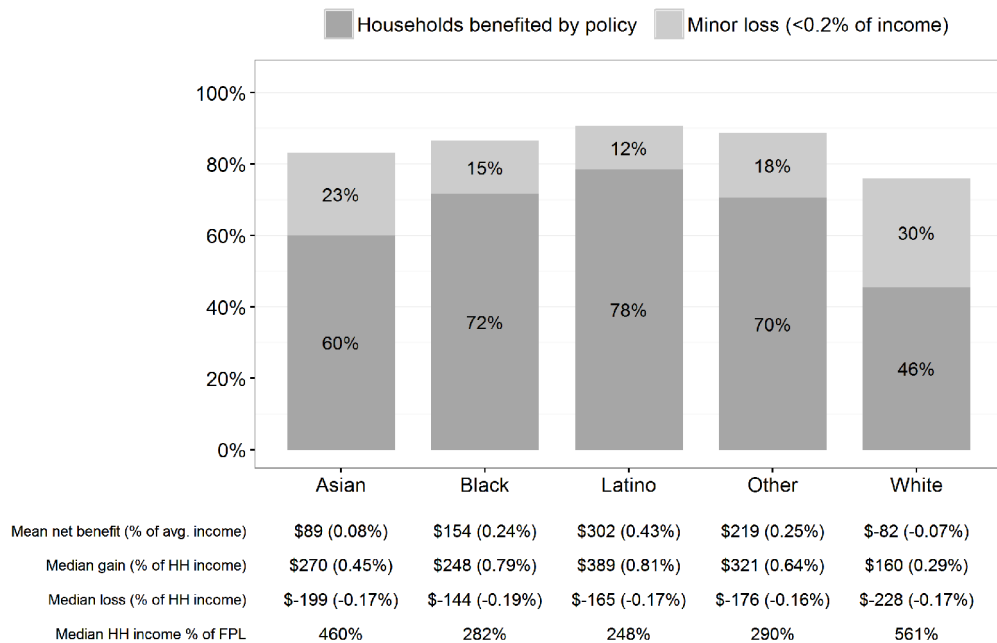


Figure 3: Impact by Race for California - District 11. Minority households tend to do better than white households as a result of lower average incomes (associated with lower carbon footprint) and/or more people per household (larger pre-tax dividend).

California - Congressional district No. 11

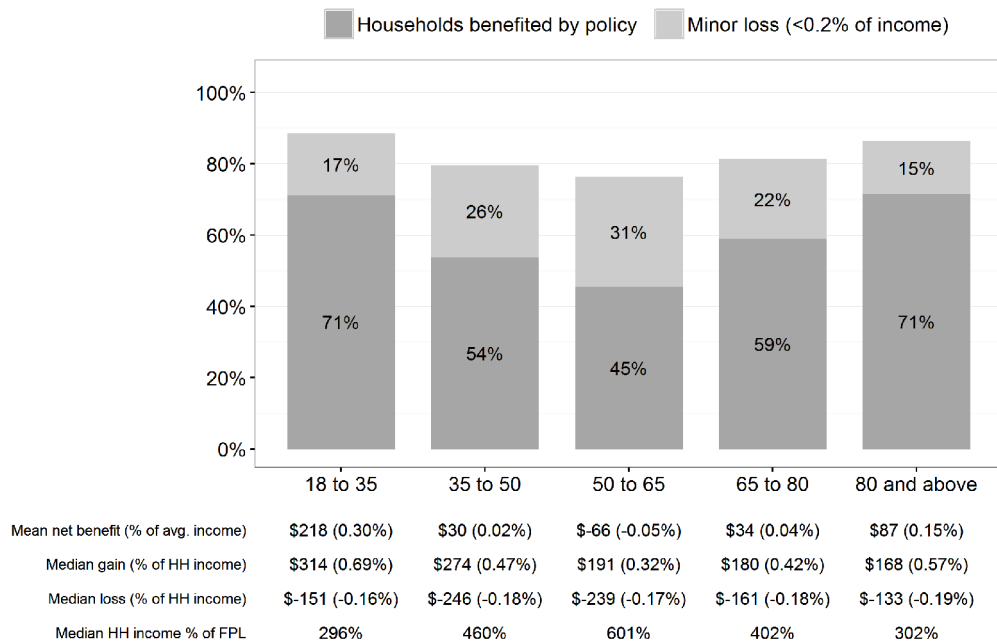


Figure 4: Impact by Age Group for California - District 11. The pattern of benefits across age groups makes sense given the impact of age on both carbon footprints and dividend received. Older households tend to have smaller footprints, reflecting reduced mobility and less consumption as a result of low fixed incomes. Younger households tend to be larger – and therefore benefited by the dividend formula – in addition to less income/consumption in early career.

California - Congressional district No. 11

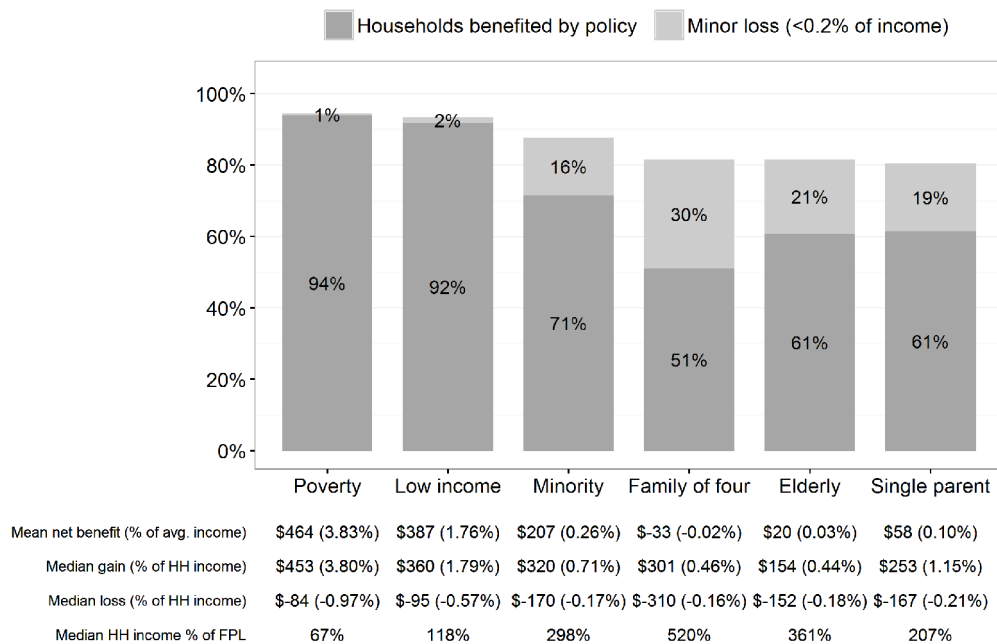


Figure 5: Impact by Household Type for California - District 11. This graph reports data for demographic groups of particular interest to many legislators. “Elderly” households are defined as having a household head age 65 or older, no more than two adults, and no children present. “Poverty” and “Low income” refer to households with income below 100% and 200% of FPL, respectively.

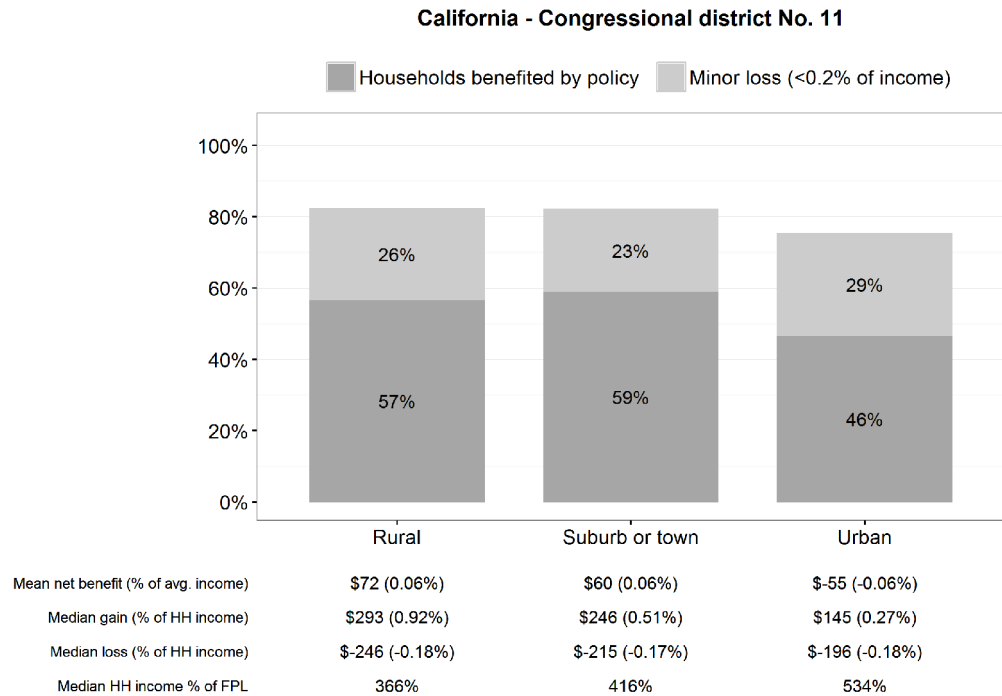


Figure 6: Impact by Community for California - District 11. This graph breaks down data by “community type” – Rural, Suburb or Town, vs Urban.

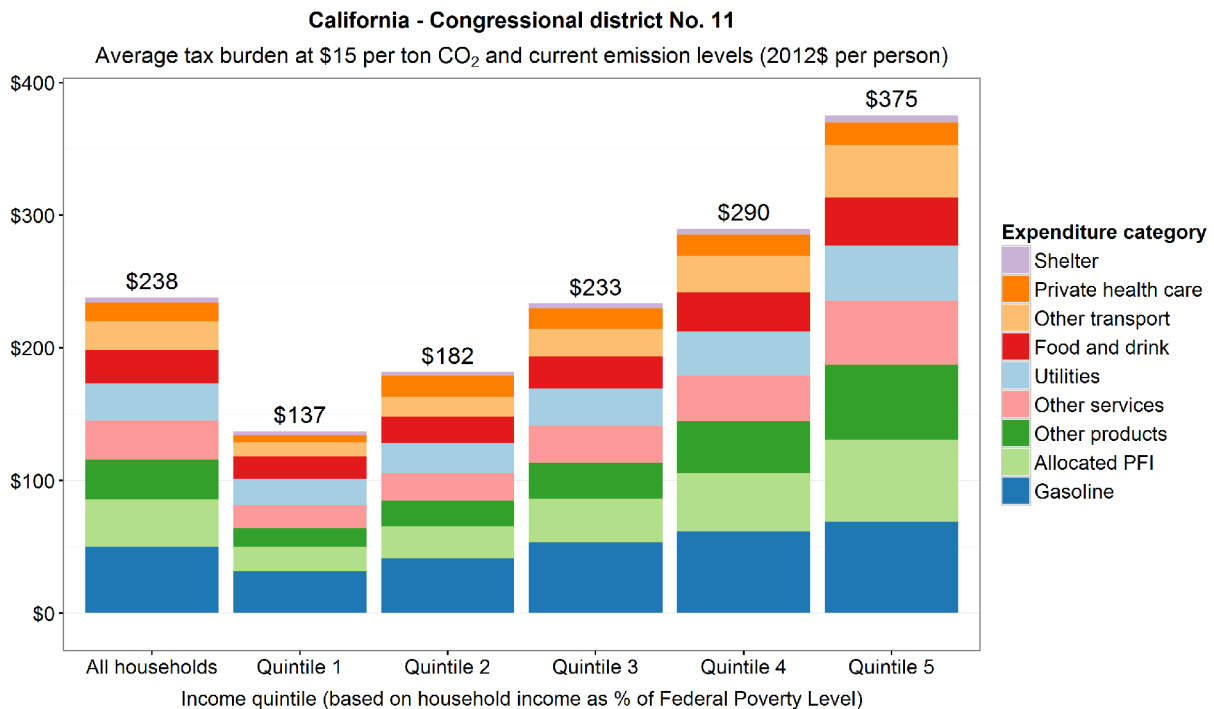


Figure 7: Expenditures by Category for California - District 11. Here we show a breakdown of where the carbon fee increases expenses (i.e. before the dividend) for each quintile. Note that direct energy expenditures (gasoline and utilities) represent less than half of the expense for most quintiles with other products and services making up the rest. Quintile 1 shows low expenditure for private health care since most health care for households in this quintile is covered by government programs. Allocated Private Fixed Income (PFI) measures economy-wide spending on fixed assets (e.g. structures, equipment, software, etc.) that are used in the production of goods and services.

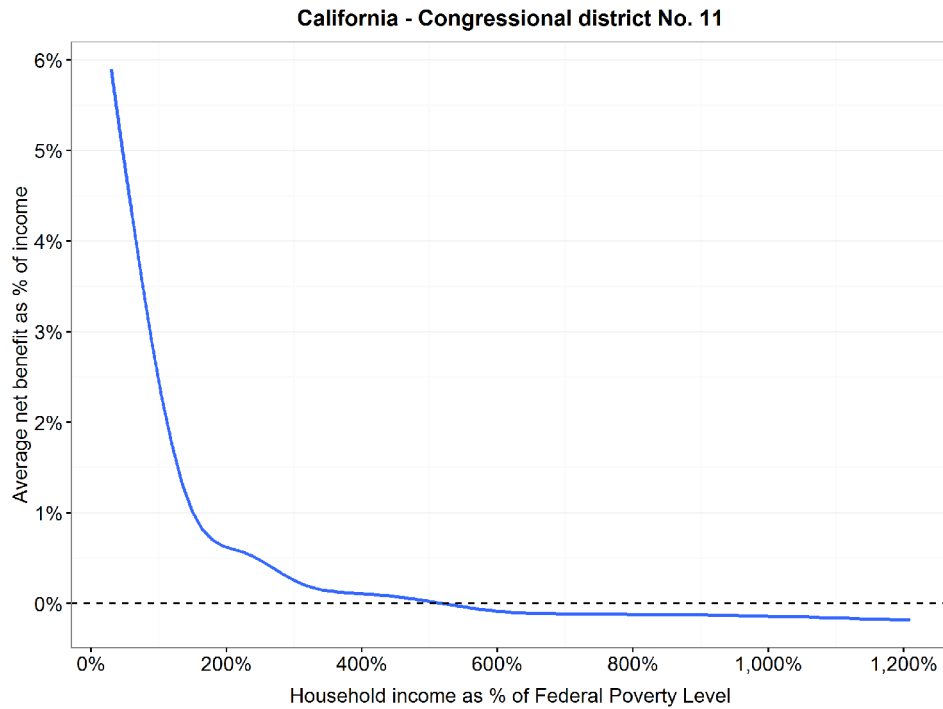


Figure 8: Relationship between benefit and income for California - District 11. This line graph shows the relationship between income expressed as a percentage of the Federal Poverty Level (FPL) vs. the average (mean) benefit as a percentage of income for households. Benefits are highest for those at the lowest income levels and generally positive through 200-300% of the FPL. Average loss for those with higher incomes is relatively small as a percentage of annual income. To avoid anomalies from small sample size at the margins, this graph does not include results for households in the bottom 1% of income, nor those above the 90th percentile of income in the district. This graph also does not convey information about how much of the population in the district is at any given point along the line.

**California jurisdictions that have passed resolutions calling for
a federal revenue-neutral fee and dividend plan**

As of June 2018

The State of California (Assembly Joint Resolution No. 43)

Counties

County of San Francisco (Resolution 336-14)
County of San Mateo (Resolution 075519)
County of Sonoma (November 4, 2017)
County of Santa Cruz (38-2018)
County of Marin (2017-50)

Cities

Alameda
Albany
Berkeley
Claremont
Davis
El Cerrito
Encinitas
Everyville
Los Altos
Marina
Modesto
Monterey
Morro Bay
Oakland
Oroville
Petaluma
Richmond
San Carlos
San Luis Obispo
Santa Cruz
Santa Monica
Sebastopol
West Hollywood

Assembly Joint Resolution No. 43
RESOLUTION CHAPTER 168

Assembly Joint Resolution No. 43—Relative to greenhouse gases.

[Filed with Secretary of State September 1, 2016.]
LEGISLATIVE COUNSEL'S DIGEST

AJR 43, Williams. Greenhouse gases: climate change. This measure would urge the United States Congress to enact a tax on carbon-based fossil fuels.

WHEREAS, The Intergovernmental Panel on Climate Change has stated in its recently released 5th Assessment Report, *Climate Change 2013: The Physical Science Basis*, that “[w]arming of the climate system is unequivocal” and “[i]t is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century”; and

WHEREAS, In May of 2013, the global atmospheric concentration of carbon dioxide reached 400 parts per million, the highest level in the last 800,000 years; and

WHEREAS, In May 2014, two separate scientific papers were published in journals of *Geophysical Research Letters* documenting dramatic retreats of Antarctic glaciers and predicting that large-scale destruction of the West Antarctic ice sheets is likely now inevitable and will lead to sea level rises of 10 feet or more; and

WHEREAS, The 2013 *Indicators of Climate Change in California*, released by the Office of Environmental Health Hazard Assessment, found that continued warming of the atmosphere would cause threats of flooding along the coastline of California; threats to infrastructure, sewage systems, wetlands, and marine life; increased ocean acidification; increased threats from wildfires; threats to the water supply from decreased snow packs; increased asthma and respiratory illness due to higher ozone levels; increased insurance and mitigation costs; and negative impacts to the agriculture, fishing, and tourism industries; and

WHEREAS, Conservative estimates by climate scientists throughout the world state that, to achieve climate stabilization and avoid cataclysmic climate change, emissions of greenhouse gases must be brought to 80 percent below 1990 levels by 2050; and

WHEREAS, The California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code) commits the state to reduce greenhouse gas emissions to 1990 levels by 2020, and the Governor’s Executive Order S-3-05 further calls on the 96 state to establish a policy to reduce greenhouse gas emissions to 80 percent below 1990 levels by 2050; and

WHEREAS, The California Global Warming Solution Act of 2006 has reached its 10-year anniversary and the California economy remains strong; and

WHEREAS, The United States needs powerful new policies to meet its greenhouse gas emission reduction goals established in the 2015 Paris Climate Agreement; and

WHEREAS, The United States Congress can enact a national carbon tax on fossil fuels, based on the amount of carbon dioxide the fuel will emit when burned; and

WHEREAS, For efficient administration, fossil fuels can be taxed once, as far upstream in the economy as practical, or at the port of entry into the United States; and

WHEREAS, A national, revenue-neutral carbon tax starting at a relatively low rate and increasing steadily over future years is a market-based solution that would minimally disrupt the economy while sending a clear and predictable price signal to businesses to develop and use noncarbon-based energy resources; and

WHEREAS, Citizens' Climate Education Corporation Commissioned Regional Economic Models, Inc. (REMI) to do a nation-wide macroeconomic study on the impact of a revenue-neutral carbon tax; and

WHEREAS, REMI's study predicted that, after 10 years, a revenue-neutral carbon tax would lead to a decrease in carbon dioxide emissions by 33 percent, an increase in national employment by 2.1 million jobs, and an average monthly dividend for a family of four of \$288; and

WHEREAS, Border adjustments, such as carbon-content-based tariffs on products imported from countries without comparable carbon pricing and refunds to our exporters of carbon taxes paid can maintain the competitiveness of United States businesses in global markets; and

WHEREAS, A national carbon tax can be implemented quickly and efficiently, and respond to the urgency of the climate crisis, because the federal government already has in place mechanisms, such as the Internal Revenue Service, needed to implement and enforce the tax and already collects taxes from fossil fuel producers and importers; and

WHEREAS, A national carbon tax would make the United States a leader in mitigating climate change and the advancing clean energy technologies of the 21st Century, and would incentivize other countries to enact similar carbon taxes, thereby reducing global carbon dioxide emissions without the need for complex international agreements; now, therefore, be it

Resolved by the Assembly and the Senate of the State of California, jointly,
That the Legislature hereby urges the United States Congress to enact, without delay, a tax on carbon-based fossil fuels; and be it further

Resolved, That the tax should be collected once, as far upstream in the economy as practical, or at the port of entry into the United States; and, be it further

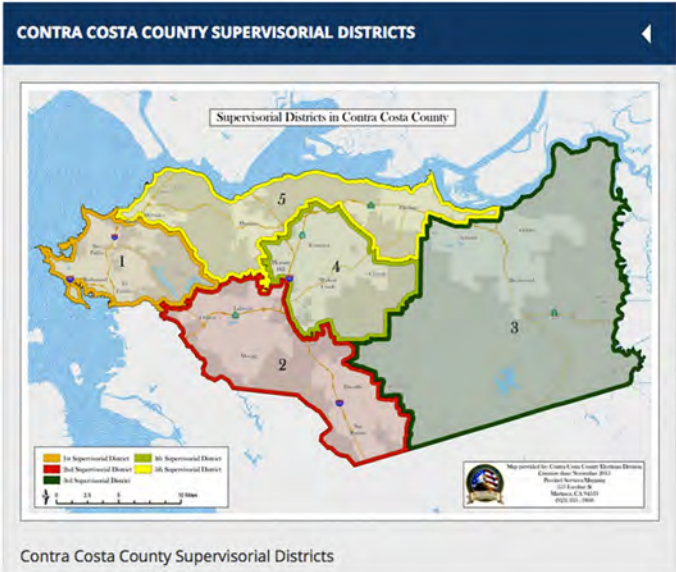
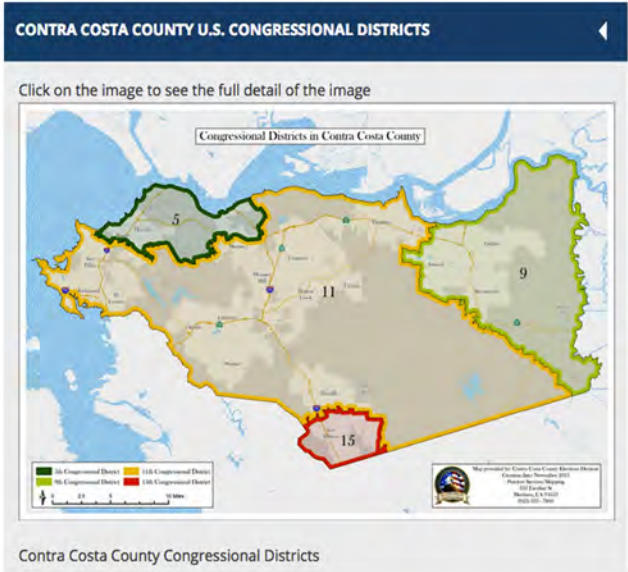
Resolved, That the tax rate should start low and increase steadily and predictably to achieve the goal of reducing carbon dioxide emissions in the United States to 80 percent below 1990 levels by 2050; and be it further

Resolved, That all tax revenue should be returned to middle- and low-income Americans to protect them from the impact of rising prices due to the tax; and, be it further

Resolved, That the international competitiveness of United States businesses should be protected by using carbon-content-based tariffs and tax refunds; and be it further

Resolved, That the Chief Clerk of the Assembly transmit copies of this resolution to the President and Vice President of the United States, to the Speaker of the House of Representatives, to the Majority Leader of the Senate, to each Senator and Representative from California in the Congress of the United States, and to the author for appropriate distribution.

Geographic boundaries of US Congressional Districts and County Supervisorial Districts in Contra Costa County



RESOLUTION NO. 2017-50
RESOLUTION OF THE MARIN COUNTY BOARD OF SUPERVISORS
URGING THE UNITED STATES CONGRESS TO ENACT A REVENUE-NEUTRAL
CARBON FEE AND DIVIDEND

WHEREAS, the average surface temperature on Earth has been increasing steadily, with the sixteen warmest years ever recorded all occurring since 1998, and the hottest of all was 2016; and

WHEREAS, climate scientists overwhelmingly agree that an increase in greenhouse gases in the atmosphere — carbon dioxide (CO₂) in particular — is causing the increase in global temperature and sea level rise, and that the primary cause of the substantial and continuing increase of CO₂ in the atmosphere is from burning carbon-based fossil fuels — coal, oil, and natural gas; and

WHEREAS, in May, 2016, the global atmospheric concentration of CO₂ reached 410 parts per million — the highest level in the last 800,000 years. It is predicted that, by 2100, the average global temperature will be 2°F to 11.5°F higher than now, depending on the level of future greenhouse gases trapped in the atmosphere ; and

WHEREAS, climate change caused by global warming-related greenhouse gas emissions, including CO₂, is already leading to large-scale problems including ocean acidification and rising sea levels; more frequent, extreme, and damaging weather events such as heat waves, storms, heavy rainfall and flooding, and droughts; more frequent and intense wildfires; disrupted ecosystems affecting biodiversity and food production; and an increase in heat-related deaths; and

WHEREAS, because CO₂ remains in the atmosphere for approximately one hundred years, we are approaching a dangerous greenhouse gas threshold whereby, if crossed, humans will no longer be able to influence the course of future global warming, as tropical forests, peat bogs, permafrost, and the oceans, which absorb and sequester carbon in a balanced state, will begin releasing additional carbon into the atmosphere; and

WHEREAS, the relentless increase in global atmospheric CO₂ concentration requires broader, more powerful policies to supplement local and regional efforts to reduce emissions; and

WHEREAS, there are embedded human health costs due to pollutants released by burning fossil fuels that cause lung disease, respiratory illnesses, and cancer; and

WHEREAS, the environmental, health, and social costs of CO₂ emissions are not currently included in prices paid for fossil fuels, but rather these externalized costs are borne both directly and indirectly by all American and global citizens; and

WHEREAS, a national carbon tax on fossil fuels, based on the amount of CO₂ the fuel will emit when burned, will begin to correct this market failure; and

WHEREAS, enacting a national carbon tax would make the United States a leader in mitigating climate change and in the clean energy technologies of the 21st Century, and would

Resolution No. 2017-50
Page 1 of 3

incentivize other countries to enact similar carbon taxes, reducing global CO2 emissions without the need for complex international agreements; and

WHEREAS, a national carbon tax, starting at a relatively low rate and increasing steadily over future years, is a market-based solution that would minimally disrupt the economy while sending a clear and predictable price signal to businesses to develop and use non-carbon-based energy resources; and

WHEREAS, a national carbon tax would incentivize manufacturers, businesses, and consumers throughout the economy to produce and use less fossil fuel, and would spur investment in and deployment of clean energy resources and energy efficient processes, without favoring any particular technology, and would thereby reduce CO2 emissions into the atmosphere; and

WHEREAS, job creation from development of clean energy and energy efficiency businesses would exceed job creation from further development of fossil fuel businesses, and would promote worker retraining for those employed in the fossil fuel industries; and

WHEREAS, if 100% of carbon tax revenue is returned to households in equal shares, approximately two-thirds of Americans will break even or come out ahead, as their dividends match or exceed direct and indirect price increases due to the tax, protecting lower and middle income households; and

WHEREAS, for efficient administration, fossil fuels can be taxed once, as far upstream in the economy as practical, or at the port of entry into the United States; and

WHEREAS, border adjustments levied on carbon-based products imported from countries without comparable carbon pricing and refunds to our exporters will help level the playing field and maintain the competitiveness of U.S. businesses in global markets; and

WHEREAS, a national carbon tax can be implemented quickly and efficiently, and respond to the urgency of the climate crisis, because the federal government already has in place mechanisms, such as the Internal Revenue Service, needed to implement and enforce the tax, and already collects taxes from fossil fuel producers and importers; and

WHEREAS, the goals of a national carbon tax to reduce CO2 emissions and transition to a green economy are consistent with state and local programs designed to mitigate climate change, such as California's AB32 and the County of Marin's Climate Action Plan and adaptation initiatives; and

WHEREAS, the market incentive provided by a steadily rising national carbon tax implemented in 2017 can result in significant and increasing near-term reductions in overall U.S. CO2 emissions, and thereby help Marin County meet or exceed its own goals; and

WHEREAS, continued widespread use of fossil fuels and global climate change pose a present and growing risk to the health and welfare of Marin County residents and to its economy, and a U.S. national, revenue-neutral carbon tax will significantly mitigate those risks and promote health and prosperity in Marin, our region, and the world.

NOW, THEREFORE, BE IT RESOLVED that the Marin County Board of Supervisors urges the United States Congress to enact, without delay, a revenue-neutral fee on carbon-based fossil fuels; and

BE IT FURTHER RESOLVED that the tax should be collected once, as far upstream in the economy as practical, or at the port of entry into the United States; and

BE IT FURTHER RESOLVED that the tax rate should start low and increase steadily and predictably; and

BE IT FURTHER RESOLVED that all tax revenue should be returned to households to protect low and middle income Americans from the impact of rising prices due to the tax; and

BE IT FURTHER RESOLVED that the international competitiveness of U. S. businesses should be protected by using border tariffs and tax refunds; and

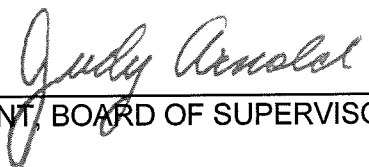
BE IT FURTHER RESOLVED that, while supporting a fee on carbon and dividend distribution, this Board's support rests entirely on the continued regulatory authority of the Environmental Protection Agency (EPA), continued implementation of the Clean Power Act, and the people's ongoing access to federal and state tort liability.

PASSED AND ADOPTED at a regular meeting of the Board of Supervisors of the County of Marin held on this 23rd day of May, 2017, by the following vote:

AYES: SUPERVISORS Dennis Rodoni, Katie Rice, Damon Connolly, Kathrin Sears,
Judy Arnold

NOES: NONE

ABSENT: NONE



PRESIDENT, BOARD OF SUPERVISORS

ATTEST:



CLERK



Contra Costa County Board of Supervisors

Subcommittee Report

AD HOC COMMITTEE ON SUSTAINABILITY

6.

Meeting Date: 07/23/2018
Subject: RECEIVE UPDATE on Renewable Resource Potential Study.
Submitted For: Jody London, Sustainability Coordinator
Department: Conservation & Development
Referral No.:
Referral Name: RECEIVE UPDATE on Renewable Resource Potential Study.
Presenter: Jody London, DCD **Contact:** Jody London (925) 674-7871

Referral History:

In 2017 the County received a \$49,000 grant from the California Strategic Growth Council to perform a Renewable Resource Potential Study.

Referral Update:

The County's existing land use regulations for renewable energy for resale purposes only allow for solar in commercial and industrial districts, and wind. This project will assess the potential for renewable resources (solar, wind, biomass, biogas) in unincorporated Contra Costa County and on County owned or leased facilities that are located throughout the County. This project at the same time will analyze opportunities and constraints for expanding renewable energy generation in the County; this will include an analysis of where potential renewable resource generation would create impacts to agriculture, job-rich land uses, habitats, aesthetics, transportation, and other land uses.

In August 2017, the Board approved acceptance of the grant. The Department of Conservation and Development subsequently issued a Request for Proposals (RFP) for consultants for this project and selected Meister Consultants Group, a Cadmus Company (Meister). The contract was approved in March. Meister is proceeding with gathering data to inform the resource assessment and has been working closely with County GIS staff to develop analytic tools. Meister has been working with staff from various County departments, as well as outside entities, to inform the renewable resource assessment.

On May 24, the County hosted the first of three stakeholder meetings for this project. 26 people participated in the meeting, including representatives from renewable energy developers, cities, higher education, State and Federal government agencies, County staff, aides to County Supervisors, and community members. Meister also presented on this project at the June 25 meeting of the Sustainability Commission. That presentation is attached for reference. The second stakeholder meeting will be held on July 25.

Using results from the resource potential assessment, County staff will collaborate with three

communities in the unincorporated area of the County that are identified by the State of California as “disadvantaged” on opportunities for residents of those communities to benefit from community-scale renewable energy.

Additionally, eight cities in the County are providing funds so the consultants can evaluate the potential for renewable resource deployment in those jurisdictions. DCD staff have facilitated introductions to the participating city staff and sent them invoices. This has allowed Meister to begin working with the cities. The results of those engagements are not directly part of this grant, however the information will complement the County’s study and increase the likelihood for more renewable energy to be installed in Contra Costa County jurisdictions.

Recommendation(s)/Next Step(s):

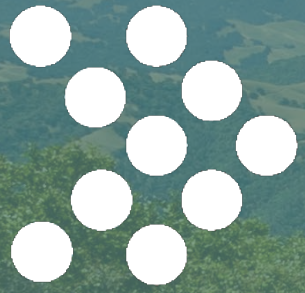
RECEIVE UPDATE on Renewable Resource Potential Study.

Fiscal Impact (if any):

None.

Attachments

Renewable Resource Potential Study Overview Presentation



CONTRA COSTA COUNTY SUSTAINABILITY COMMISSION | RENEWABLE ENERGY RESOURCES PROJECT UPDATE



Philip Kreycik
June 25, 2018

07-23-18 Ad Hoc Ctee on Sustainability Mtg Agenda Packet-Page 34 of 62



MEISTER
CONSULTANTS GROUP

| A CADMUS COMPANY

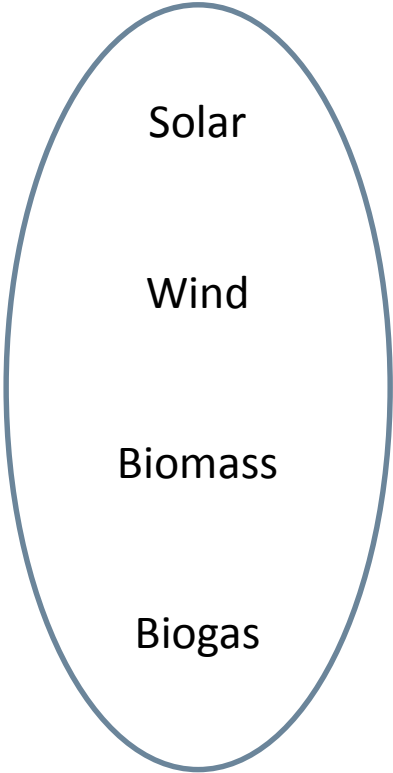
Purposes

- » Assessing the degree to which renewables in Contra Costa County can contribute to **state**, **County**, and **city** sustainability goals
- » Assessing priority locations/regions for renewable development
- » Assessing tradeoffs and long-term planning considerations
- » Uncovering options for participation in MCE's feed in tariff

Underlying question: What barriers preclude scaling up resource development (e.g. zoning, transmission and distribution limitations)?

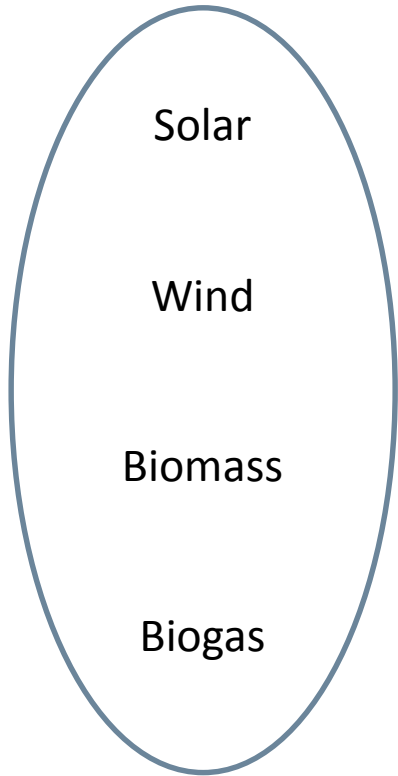
Scope

Technologies:

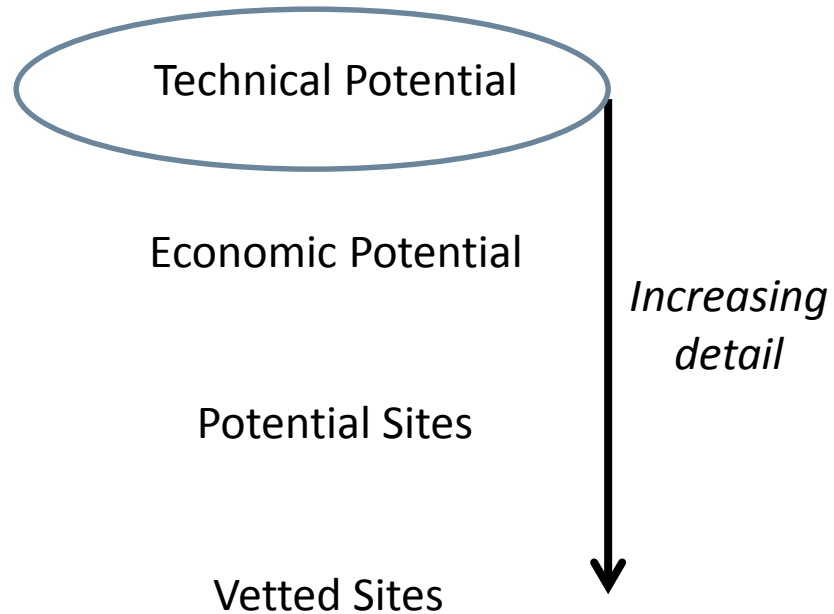


Scope

Technologies:

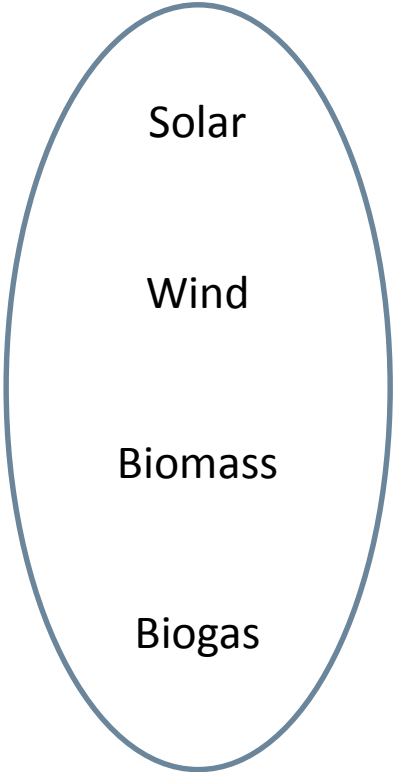


Level of Detail:

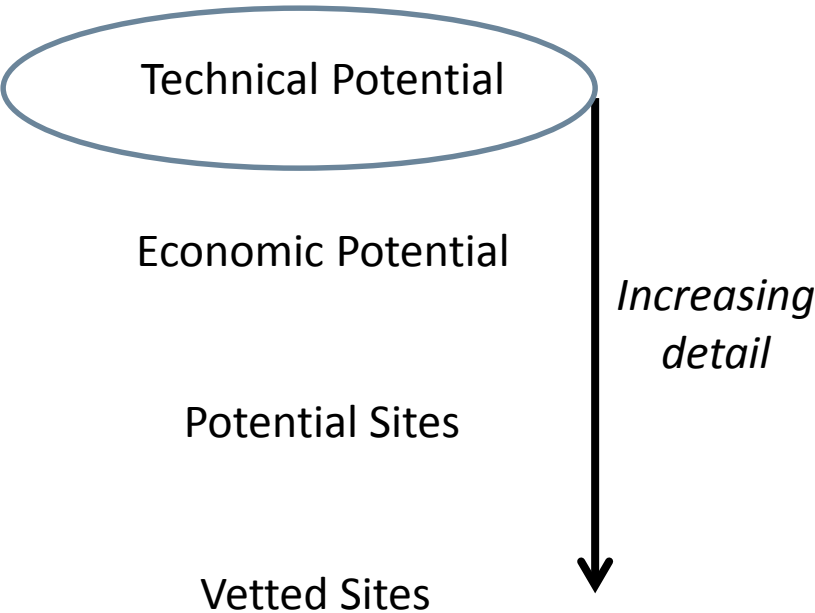


Scope

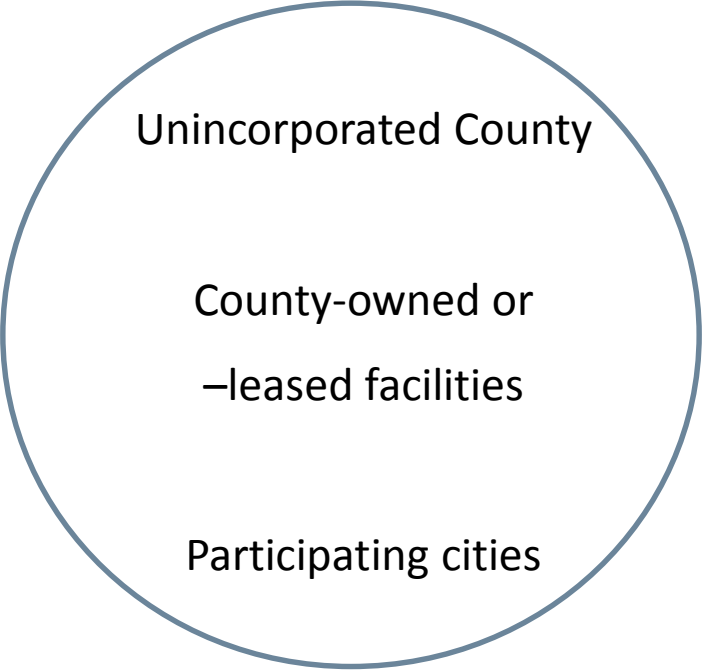
Technologies:



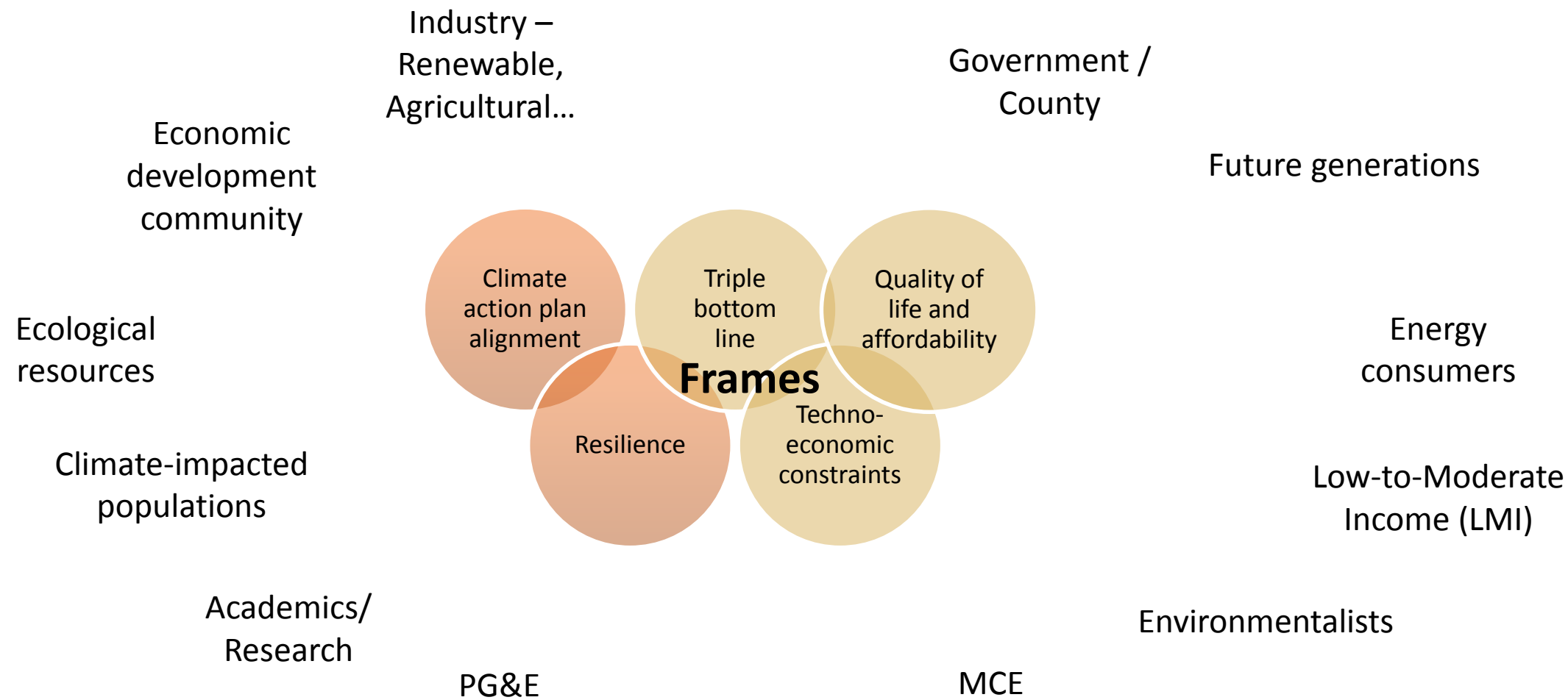
Level of Detail:



Geographies:



Stakeholders and frames





QUANTIFICATION APPROACH

Presentation by the
MCG Project Team

May 24, 2018
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Methodological Challenges and Solutions

Challenge	Planned solution
Lack of key data (e.g. parking lot locations and sizes, transmission and distribution system data)	Collaboration with student group and County staff to create data resources; Simplifying assumptions on interconnection

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Large number of parcels, large geography, and many jurisdictions	Focus on areas of particular interest; utilize existing analyses where possible

Methodological Challenges and Solutions

Challenge	Planned solution
Lack of key data (e.g. parking lot locations and sizes, transmission and distribution system data)	Collaboration with student group and County staff to create data resources; Simplifying assumptions on interconnection
Large number of parcels, large geography, and many jurisdictions	Focus on areas of particular interest; utilize existing analyses where possible

- Filter for areas that meet certain requirements. Avoid parcel-level granularity.
- » Only in unincorporated County, County-owned or leased facilities, or participating cities
 - » No public safety issues
 - » No major land use tradeoffs
 - » No major environmental concerns
 - » No major aesthetic limitations



SOLAR METHODOLOGY

Presentation by the
MCG Project Team

May 24, 2018
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Ground-mounted Solar

» Parking lot

- › Data creation effort
- › Biggest parking lots first (e.g. shopping centers, employment centers, schools)

» Undevelopable

- › Northern Waterfront Industrial Atlas
 - › Industrially-related
 - › Brownfields
- › Highway medians & cloverleafs

» Greenfield

- › Certain categorical exclusions
- › “Strikes” against certain sites (e.g. prime farmland, fire hazard zones, flood zones)

Outside scope: small ground-mounted solar

Rooftop Solar: Leverage Google Sunroof



Sunlight

Every included panel receives at least 75% of the maximum annual sun in the county. For Walnut Creek, the threshold is 1,233 kWh/kW.



Installation size

Every included roof has a total potential installation size of at least 2kW.

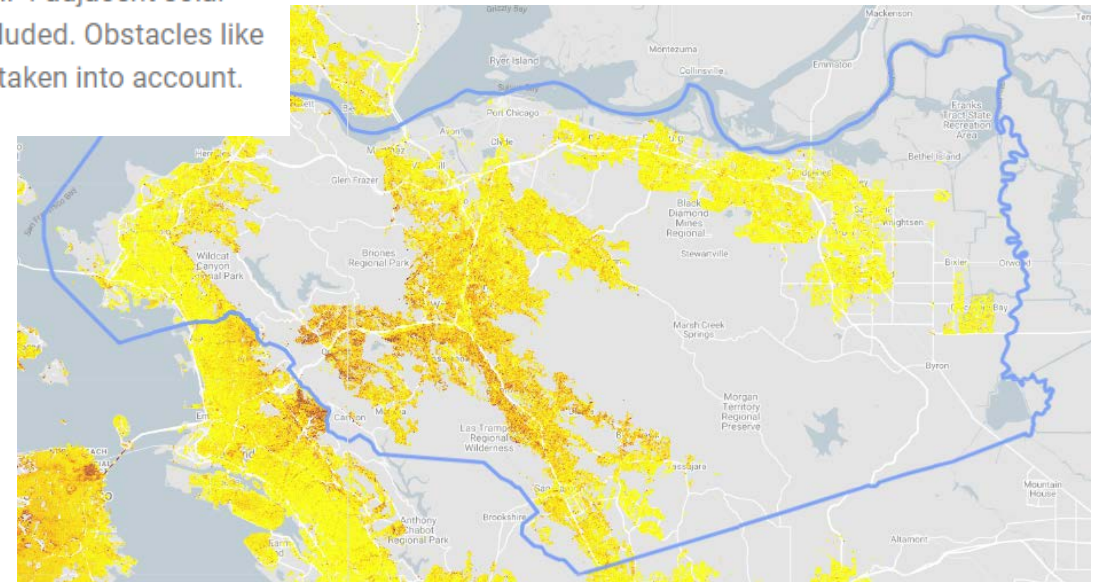


Space & obstacles

Only areas of the roof with enough space to install 4 adjacent solar panels are included. Obstacles like chimneys are taken into account.

Project Sunroof's model makes the following assumptions:

- Each panel is assumed to be 250W with an efficiency of 15.3%, a DC to AC derate factor of 85%, and industry-standard assumptions about other factors.
- Panels are assumed to be mounted flush with the roof, including on flat surfaces.
- Arrays are between 2kW and 1000 kW.
- Only arrays on buildings are considered, not other spaces such as parking lots or fields.
- In cases where a building is not in a county, the maximum sun is determined by the max sun received in the city.



Source: www.google.com/get/sunroof

Considerations for each solar resource

- » Solar insolation (National Solar Radiation Database)
- » Scale (estimated kW accounting for shading)
- » Net metering considerations
- » Transmission and distribution cost considerations





WIND METHODOLOGY

Presentation by the
MCG Project Team

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Wind

- » Qualitative assessment of both large and small wind
- » Where are the locations in the county that have:
 - › Sufficient wind speed
 - › Large enough area
 - › Sufficient nearby transmission capacity
- » Which of these areas are not subject to major siting barriers?





BIOMASS METHODOLOGY

Presentation by the
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Biomass

- » Accounting for biomass from the **feedstock perspective**, not the facility siting perspective
 - › Biomass generators exist near the County and are under-utilized/closing
- » Focus will be to quantify the amount of feedstock that could be sent to these facilities
- » Data to be used
 - › Pesticide usage to determine agricultural acreage and feedstocks
 - › Chipping and urban wood waste
 - › Interviews with chipping facilities, landfills, and composting facilities





BIOGAS METHODOLOGY

Presentation by the
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Biogas

- » Studying biogas at specific sites – landfills, wastewater treatment, and composting sites
- » Interviews to...
 - › Determine where gas is already collected or flared
 - › Find out about any gas collection feasibility studies
 - › Assess likely volume of gas available
 - › Discover any fatal flaws for specific sites
- » Proximity to substations
- » Net metering potential

Note:
Landfills will
also be
considered
for solar
potential.



PLANNING AND ZONING CONSIDERATIONS

Presentation by the
MCG Project Team

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Zoning: What modifications would be required to enable development of these resources?

- » Opportunities and constraints
 - › How much resource can be developed at reasonable cost with minimal land use tradeoffs?
 - › E.g. Co-located with other economic uses; brownfields; buffer lands
 - › Will more renewables be needed than can be developed with minimal tradeoffs?

- » What rubrics should be used to determine desirability of each site and each resource?

- » What impacts can be expected for existing and planned land uses?

Zoning recommendations

- » Focus on counties with similar contexts and outlooks to Contra Costa County
 - › Development pressure, many competing uses
 - › Motivated to develop renewable resources
 - › Cautious of unanticipated effects on the County's significant habitat, farmland, and open space resources

- » Initial list of similar counties:
 - › Alameda › Yuba
 - › Marin › Madera
 - › San Joaquin › Kings
 - › Solano › Tulare
 - › Sonoma

Timeline

	April '18	May '18	June '18	July '18	Aug '18	Sept '18	Oct '18
Quantification							
Planning & Zoning							
Reporting							



DISCUSSION



Questions

- » How does this study contribute to and interact with Sustainability Commission goals and planning?
- » Are there additional data sources we should be considering?
- » What has been your experience with renewables in the County thusfar? E.g. PG&E receptiveness, cost considerations, other challenges
- » Would you recommend factoring any additional considerations into our assessment?



Contra Costa County Board of Supervisors

Subcommittee Report

AD HOC COMMITTEE ON SUSTAINABILITY

7.

Meeting Date: 07/23/2018
Subject: RECEIVE REPORT from Sustainability Commission Chair.
Submitted For: Jody London, Sustainability Coordinator
Department: Conservation & Development
Referral No.:
Referral Name: RECEIVE REPORT from Sustainability Commission Chair.
Presenter: Jody London, DCD **Contact:** Jody London (925) 674-7871

Referral History:

The Ad Hoc Committee on Sustainability has asked the Sustainability Commission to provide a report on its deliberations at each Committee meeting.

Referral Update:

N/A.

Recommendation(s)/Next Step(s):

RECEIVE report from the Chair of the Contra Costa County Sustainability Commission.

Fiscal Impact (if any):

N/A.

Attachments

No file(s) attached.



Contra Costa County Board of Supervisors

Subcommittee Report

AD HOC COMMITTEE ON SUSTAINABILITY

8.

Meeting Date: 07/23/2018
Subject: RECEIVE REPORT from County Sustainability Coordinator.
Submitted For: Jody London, Sustainability Coordinator
Department: Conservation & Development
Referral No.:
Referral Name: RECEIVE REPORT from County Sustainability Coordinator.
Presenter: Jody London, DCD **Contact:** Jody London (925) 674-7871

Referral History:

The Ad Hoc Committee on Sustainability has requested an update at each meeting on sustainability work by County staff.

Referral Update:

Below are the major bodies of work since the Committee last met on May 7:

- In early June we learned that Contra Costa County is receiving two grants totaling \$400,000 that will help us put more electric vehicles on the road and engage County residents in making our County cleaner. The first is a \$200,000 grant to the Contra Costa Transportation Authority to develop an electric vehicle readiness blueprint. Someone dropped out of the California Energy Commission solicitation and Contra Costa County was next in line. The second grant is a \$200,000 Climate Protection Grant from the Bay Area Air Quality Management District to launch Cleaner Contra Costa, a two-year pilot for innovative community outreach strategies that will encourage County residents to use the Community Climate Solutions “Go CO2 Free” online platform for climate action engagement.
- Hosted first stakeholder meeting for the Renewable Resource Potential Study on May 24. Worked with the consultant team and staff to develop criteria for evaluating resource potential and integrate interested cities in to the project (Concord, Lafayette, Martinez, Oakley, Pinole, Pleasant Hill, Walnut Creek). Stakeholder meeting #2 will be July 25.
- Accepted the resignation of Reid Edwards, Alternate, District 2 on the Sustainability Commission. The vacancy was accepted by the Board of Supervisors on June 5 and the Clerk of the Board posted the position. Supervisor Andersen will be bringing forward a nominee at the end of July.
- Supported June 25 meeting of the Sustainability Commission. The meeting included presentations on Adapting to Rising Tides in Eastern Contra Costa County and the Renewable Resource Potential Study, deliberation on recommending the Board support the

carbon fee and dividend concept, planning for the August 18 Sustainability Commission retreat, and reports from staff and Commission members.

- Organized upcoming July 24 meeting of the Sustainability Exchange, for local government staff. The topic this quarter is the Concord Naval Weapons Station project. Staff from the City of Concord are helping host and organize the meeting.
- Coordinated participation of County emergency preparedness staff in a California Public Utilities Commission (CPUC) workshop on June 26. The CPUC is exploring how utilities engage with local governments in emergency response planning.
- Continued outreach to Public Information Officers in other County departments and research on developing a Countywide message on sustainability. I am co-chairing a collective action group on community engagement through the Urban Sustainability Directors Network (USDN). I am consulting with members of the Sustainability Commission as part of the work for the USDN group.
- Collaborated with County staff working on topics including land use and transportation, hazardous materials, green business program, economic development, Planning Integration Team for Community Health (PITCH), codes, solid waste, energy.
- Participated in regional activities.

Recommendation(s)/Next Step(s):

Receive report from County Sustainability Coordinator.

Fiscal Impact (if any):

None.

Attachments

No file(s) attached.
