October 3, 2017

Department of Toxic Substances Control
Attention: Ms. Renee Avila
1001 "I" Street
P.O. Box 806
Sacramento, California 95812-0806

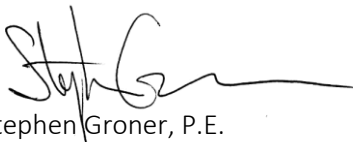SUBMISSION OF APPROVED GROUP B & C OUTREACH PLAN ADVERTISING COMPONENT

Dear Ms. Avila,

The following document provides Thermostat Recycling Corporation's (TRC) submittal of the requested advertising component of TRC's approved Outreach and Pilot Plans for Group B and C.

The document explains TRC's strategy for the advertising component using advertising industry standards. Specifically, the document provides an Overview, Geographic Targeting, Audience Targeting, Media Overview, 2018 Advertising Selection, Media Rationale, Metrics/Analysis, Messaging, Media Flowchart and Ad Spend/Budget. The format of the document is a media strategy slide deck, which is the normal format for media/advertising documents. This advertising strategy provides a coordinated effort to build awareness among the various audiences, via multiple mediums and work towards enhancing and integrating awareness of the overall collection efforts.

TRC is submitting this document on behalf of the 25 signatories of the Consent Order listed below. If you have any questions regarding this submission, please feel free to contact me at (562) 597-0205, via email (sgroner@sga-inc.net) or the address below.

Regards,

Stephen Groner, P.E.
California Program Manager - TRC
100 W. Broadway, Suite 290
Long Beach, CA 90802

cc: Mr. Rick Brausch
        1001 "I" Street
        P.O. Box 806
        Sacramento, California 95812-0806

        Mr. Ryan Kiscaden
        Thermostat Recycling Corporation
        500 Office Center Drive, Suite 400
        Fort Washington, PA 19034

(25) Company's Signatures representing;

Bard Manufacturing Company, Inc.
Burnham Holdings, Inc.
Carrier Corporation
Chromalox
Crane
Climate Master, Inc.
Empire Comfort Systems
General Electric Company
Honeywell International Inc
Hunter Fan Company
Invensys, Inc.
ITT Corporation
Johnson Controls
Lear Siegler
Lennox International Inc.
Lux Products
The Marley-Wylain Company
Nortek Global HVAC LLC
Sears Holdings
Thomas & Betts Corporation
Trane Residential Systems
Uponor, Inc.
Valliant Corporation
W.W. Grainger
White-Rodgers

Introduction:

The following advertising component for TRC's approved Outreach and Pilot Plans for Group B and C lays out a strategic approach and implementation road map to expanding awareness of mercury thermostat collections across the state of California through buying ad space in various media markets and media channels. The advertising strategy pairs data/research obtained from previous workplans on targeting regional areas with an understanding of effective media channel usage to target resources at audiences that are most likely to encounter mercury thermostats and/or regions that have seen the highest numbers of thermostats collected by the TRC program.

As we have previously discussed, targeting mercury thermostat removal is a difficult task. To start, it is an event which is by nature is a very infrequent event for most residents and for the average resident or business it is an event that is not repeated. At the same time, we also have a more niche audience of HVAC contractors, where it may be a more frequent occurrence, however they are a fairly small target audience, which needs more pinpointed and directed advertising. Nonetheless, our goal is also to reach a large number of individuals across a broad geographic area in various very large media markets and other areas that are extremely rural. And lastly, the advertising component takes into consideration the need to reach Spanish speaking audiences in the State and incorporates that need into the mix of mediums selected for the campaign.

In response to these and other factors, TRC enlisted the Gillespie Group, a firm specifically steeped in the field of mass media advertising, to design a media buy strategy (i.e., advertising component) to reach our array of audiences and demographics. The advertising component is designed to reach out to our audiences through both micro-targeting via market research of channels using online psychographic identification (i.e., using classifications of people according to their attitudes, aspirations, and other psychological criteria as opposed to focusing just on demographics which just relies on socioeconomic information) and audience trade targeting for key contractor audiences via niche trade publications, but also reach a mass audience via outdoor billboards/major freeway advertising that will enable us to connect with individuals at a broad scale and produce millions of impressions per quarter. The advertising component outlines the rationale behind the selection of

each of the media channels and provides some of the reasoning on why other channels were not selected.

In addition, geographically the advertising component uses broad channel outreach to cover the State in general through online ad placements and then focuses specific geographic targeting in key media markets through "out-of-home" media placements (i.e., billboard advertising), building broad reach in the media markets of the Bay Area, Sacramento/Central Valley and Greater Los Angeles region (which includes the Inland Empire areas of San Bernardino and Riverside Counties). These are the regions from which the majority of thermostats have been collected and which best aligns with the criteria we have used to evaluate higher risk areas (age of structure, income level, demographics, etc.) as described in the approved Pilot Plans.

The advertising component is broken into the following sections: an Overview, Geographic Targeting, Audience Targeting, Media Overview, 2018 Advertising Strategy/Selection, Media Rationale, Metrics/Analysis, Messaging and Media Flowchart. The format of the report is a media strategy slide deck, which is the normal format for media/advertising planning documents. This advertising component provides a coordinated effort to build awareness among the various audiences, via multiple mediums and with the specific aim of enhancing existing outreach efforts and integrating awareness of the overall collection efforts.

At this point in the program with all the Outreach Plans and Pilot Plans designed and approved, our goal is to ensure residents are aware of the opportunity to properly recycle their mercury thermostat. In addition, we are looking to coordinate our efforts and integrate them so that each individual effort targeting a specific audience works hand in hand with parallel or overlapping outreach efforts so we have the best possible chance of capturing any mercury thermostat coming off a wall in California.

2017 - 2018

Approved California Outreach Plan

Advertising Component

Overview

Thermostat Recycling (TRC) respectfully submits this advertising component as part of the Department of Toxic Substance Control's approval of Group B and C Outreach and Pilot Projects.

Geographic Targeting

The following advertising component will provide for "general program awareness across all groups and all geographic areas in California." (DTSC Letter, 4 August 2017)

Audience Targeting

The media campaign will provide broad based audience targeting against the general consumer population.

The campaign will also reach key audiences such as HVAC contractors, general contractors, retailers, etc.

Audience Targeting

The campaign will also reach the Spanish speaking population through an overlay to the digital campaign targeting individuals whose desktop browsers are set to Spanish.

Media Overview

The campaign will deploy throughout the entire state of California.

The campaign will run for fifteen months. Media will be flighted in order to:

- Sustain coverage for a fifteen month period.
- Concentrate dollars for maximum impact.

Media Overview

Flights are as follows

- November and December of 2017 and February 2018
  - Launch immediately

- March, April and May 2018
  - Concentrate dollars over three months in order to garner more share of voice while in market with the TRC message.

- September, October and November 2018
  - Concentrate dollars over three months in order to garner more share of voice while in market with the TRC message.

Media Recommendation

The following two media types are being recommended:

- Digital
  - Native
  - Mobile
  - Digital Video

- Out of Home
  - Digital Units
  - Municipal Boards

Media Considered
But Not Recommended

Radio
- Radio units (typically thirty or sixty-seconds) are not conducive to fully explaining the TRC message.
- Radio is inefficient when reaching a state-wide geography.

Local and Regional Newspapers
- Declining readership.
- Inefficient to seed a meaningful message across the geography.

2018 Advertising

Current TRC Program Elements

TRC is currently planning its ad campaign for 2018. As noted earlier, this campaign will include TRC ads in trade publications. Most, if not all of the trade publications have circulation throughout California.

TRC's current advertising campaign also includes Google Adwords. California will be one of the geographic areas covered by this effort. AdWords is an important, base-line element for any advertiser. It should be included as a foundational element to any ad campaign.
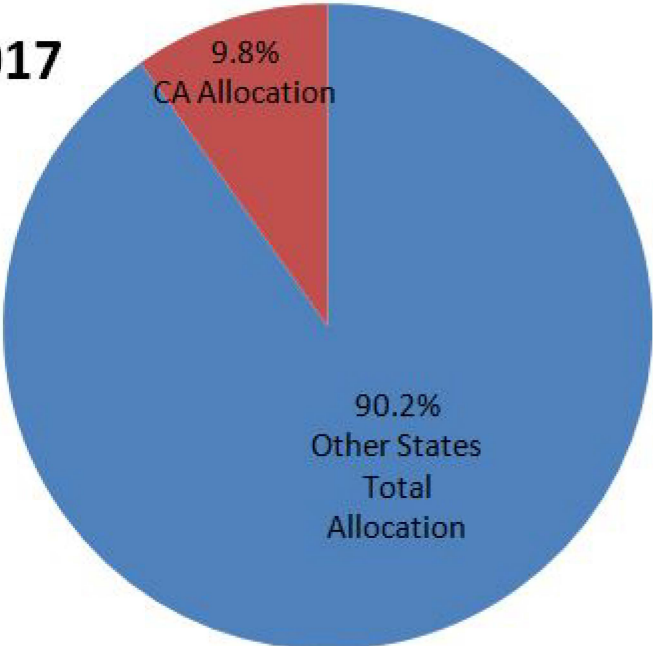
These overall advertising tactics for 2018 will include California and are <u>over and above</u> the incremental components outlined in this presentation.

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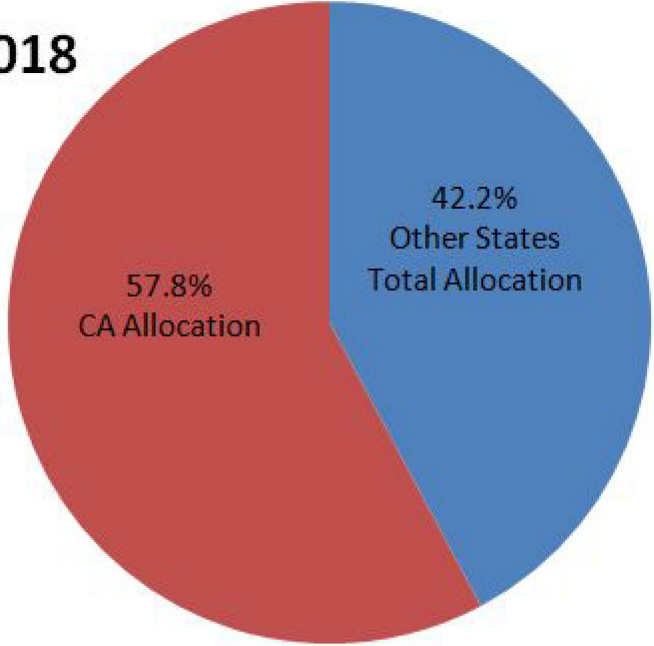
2018 Advertising

A media strategy was developed that will substantially increase TRC's California advertising over 2017's initiative.

Core elements from 2017 will be enhanced and augmented with digital and traditional media.

2017

- 9.8% CA Allocation
- 90.2% Other States Total Allocation

2018

- 42.2% Other States Total Allocation
- 57.8% CA Allocation

Media Rationale

Media Rationale
Digital Platform

Digital advertising encompasses one of the largest, fastest growing and effective media platforms available to advertisers. Today, digital advertising is far beyond AdWords or static banner ads.

This constantly evolving and increasingly popular platform allows advertisers to more effectively target audiences, serve relevant messages and track results.

Advertising units, i.e. the ads themselves, are dynamic, interactive and highly engaging.

Individuals who are exposed to online ads will be able to quickly and easily click to find more information.
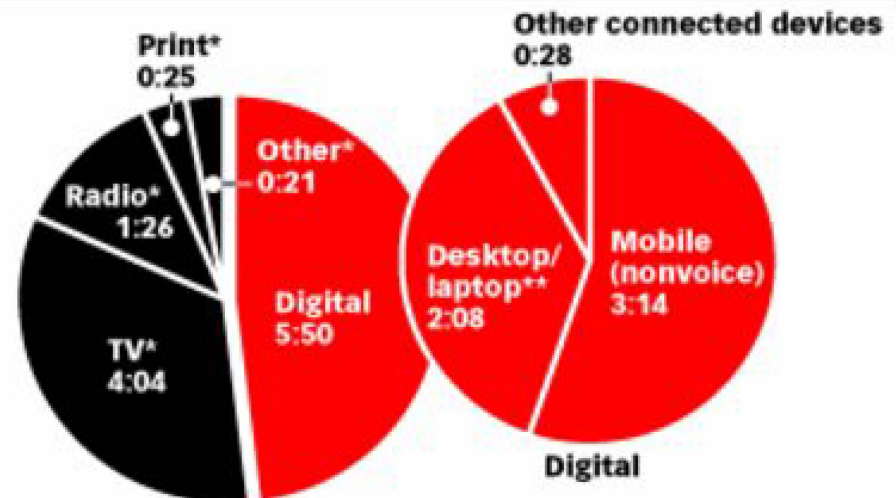
Media Rationale
Digital Platform

Why Digital?

Digital usage continues to capture more time spent per day compared with major media:

- Digital accounts for 5.5 hours per day / 44% of time spent

Average Time Spent per Day with Major Media by US Adults, 2017
hrs:mins

Print* 0:25
Radio* 1:26
TV* 4:04
Other* 0:21
Digital 5:50

Other connected devices 0:28
Desktop/laptop** 2:08
Mobile (nonvoice) 3:14
Digital

Total per day=12 hours 7 minutes

Note: ages 18+; time spent with each medium includes all time spent with that medium, regardless of multitasking; for example, 1 hour of multitasking on desktop/laptop while watching TV is counted as 1 hour for TV and 1 hour for desktop/laptop; *excludes digital; **includes all internet activities on desktop and laptop computers
Source: eMarketer, April 2017

225407

www.eMarketer.com

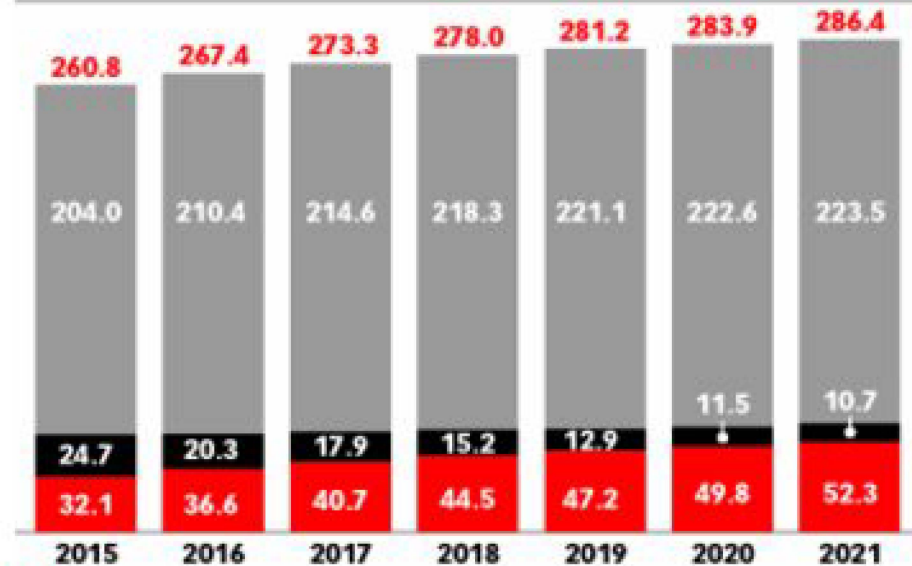GILLESPIE GROUP
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Media Rationale Digital Platform

People are using digital.

- Internet users continue to grow with mobile having the highest year over year growth.

US Internet Users, by Device, 2015-2021
millions

	2015	2016	2017	2018	2019	2020	2021
Total (red, top)	260.8	267.4	273.3	278.0	281.2	283.9	286.4
Dual desktop/laptop and mobile (gray)	204.0	210.4	214.6	218.3	221.1	222.6	223.5
Desktop/laptop-only (black)	24.7	20.3	17.9	15.2	12.9	11.5	10.7
Mobile-only (red)	32.1	36.6	40.7	44.5	47.2	49.8	52.3

- Mobile*-only internet users
- Desktop/laptop-only internet users
- Dual desktop/laptop and mobile* internet users

Note: individuals of any age who access the internet via desktop/laptop and/or a mobile device (browser or app) at least once per month; *includes feature phones, smartphones and tablets
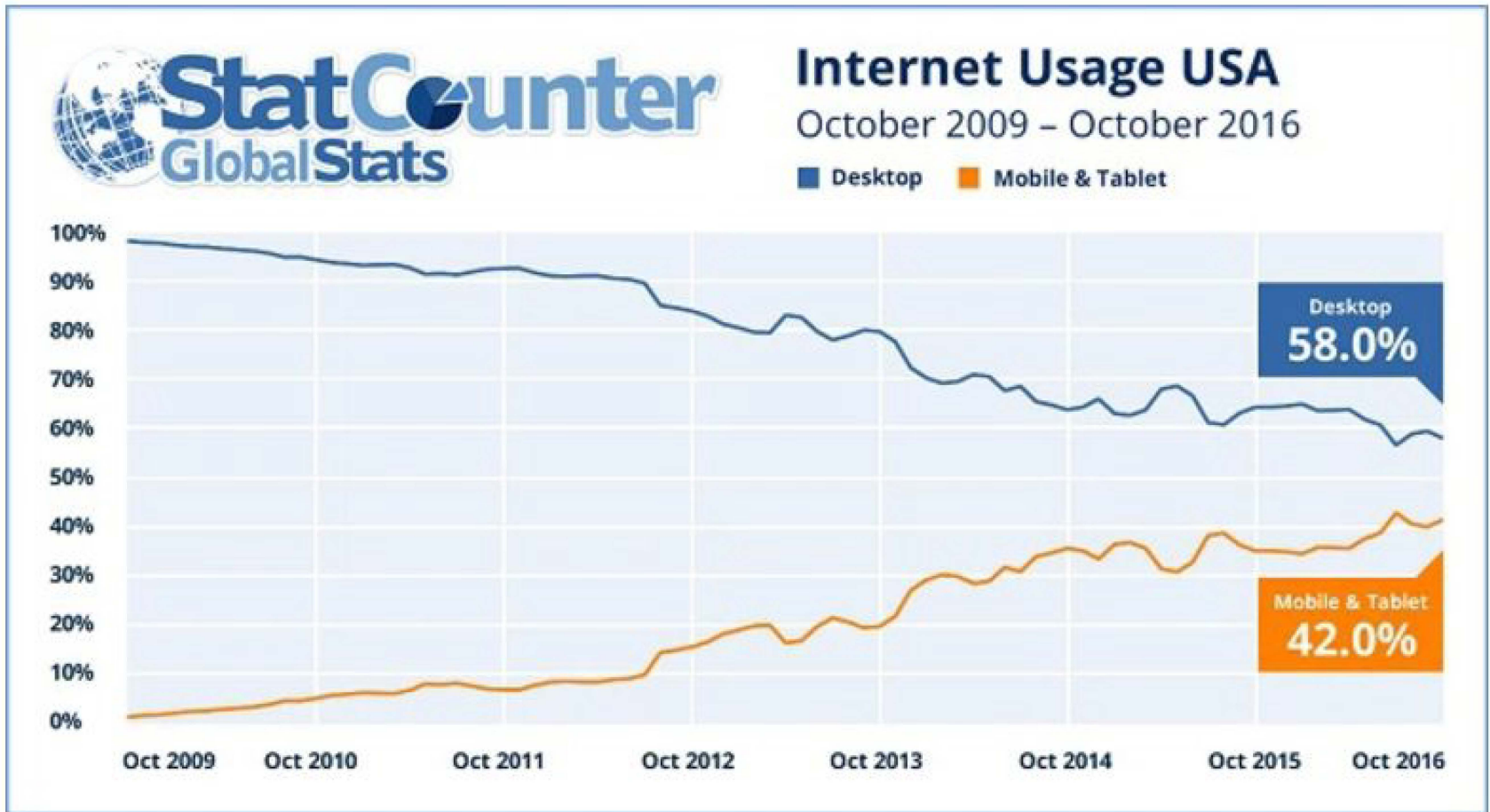Source: eMarketer, Feb 2017

222781   www.**eMarketer**.com

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Media Rationale
Digital Platform

Mobile usage continues to increase year over year.

Media Rationale
Digital OOH Platform

Digital billboard inventory continues to grow as static units are being replaced with digital. This platform is being recommended as a way to provide:

- Short messaging used to drive traffic to website.

- Broad reach branding providing heavy message frequency

- Engage and develop a dialogue with consumers through unlimited creative executions.

Note: There are 8 advertisers per unit who each receive 8 seconds out of a 64 second cycle. Messages rotate equally through the course of the day.
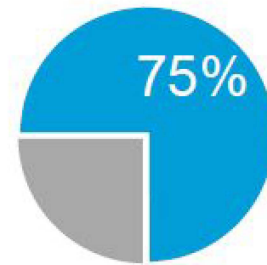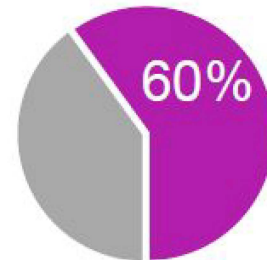
Media Rationale
Digital OOH Platform

Digital billboards get noticed.

Digital billboards provide a way to update creative as needed with no production hard cost.

75% NOTICED DIGITAL BILLBOARD PAST MONTH

75% of travelers noticed a digital billboard in the past month.

60% NOTICED DIGITAL BILLBOARD PAST WEEK

60% of travelers noticed a digital billboard in the past week.

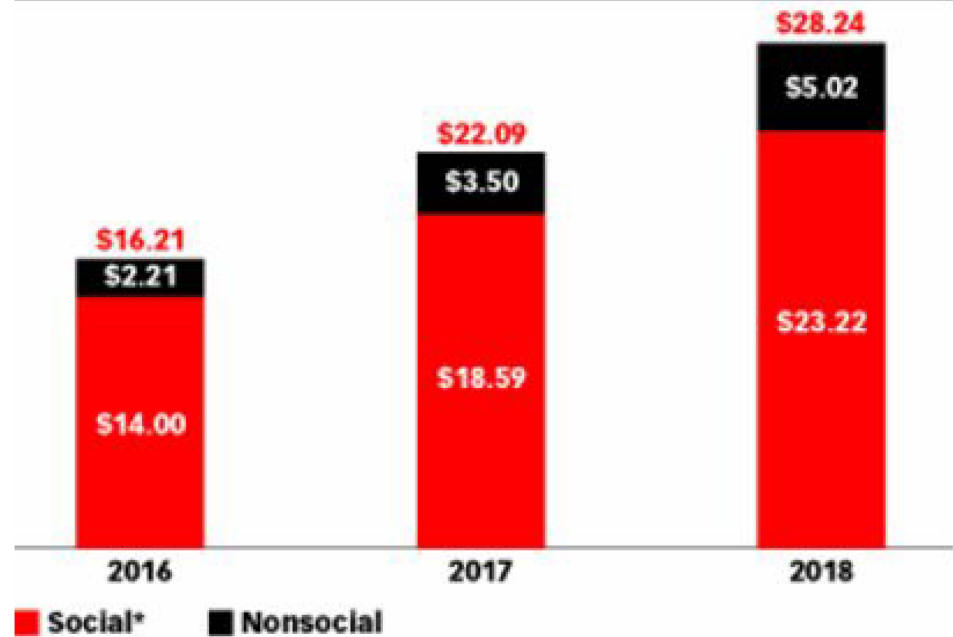Source: Nielsen Digital Study

Media Detail

Media Detail - Native

Why Native?

- Fastest growing display category.

US Native Digital Display Ad Spending, by Segment, 2016-2018

billions

2016: $16.21 — Social* $14.00, Nonsocial $2.21
2017: $22.09 — Social* $18.59, Nonsocial $3.50
2018: $28.24 — Social* $23.22, Nonsocial $5.02

■ Social*   ■ Nonsocial

Note: includes digital display ads that follow the form, feel and function of the content of the media on which they appear; *includes digital display ads appearing within social networks, social network games and social network apps that follow the form, feel and function of the content of the media on which they appear
Source: eMarketer, March 2017

224579   www.eMarketer.com

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Media Detail - Native

Consumers looked at native ads 52% more frequently than banner ads.

Native Ads 4.1	Banner Ads 2.7

Average number of times the ad was viewed in a session

Native Ads 32%		Banner Ads 23%

Percentage of lift in brand favorability

Native Ads 52%		Banner Ads 34%

Percentage of lift in purchase intent

Source: IPG Media Lab

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Media Detail - Native

Native display ads go across all devices and match the look, feel and visual context of the website or app where they are seen.
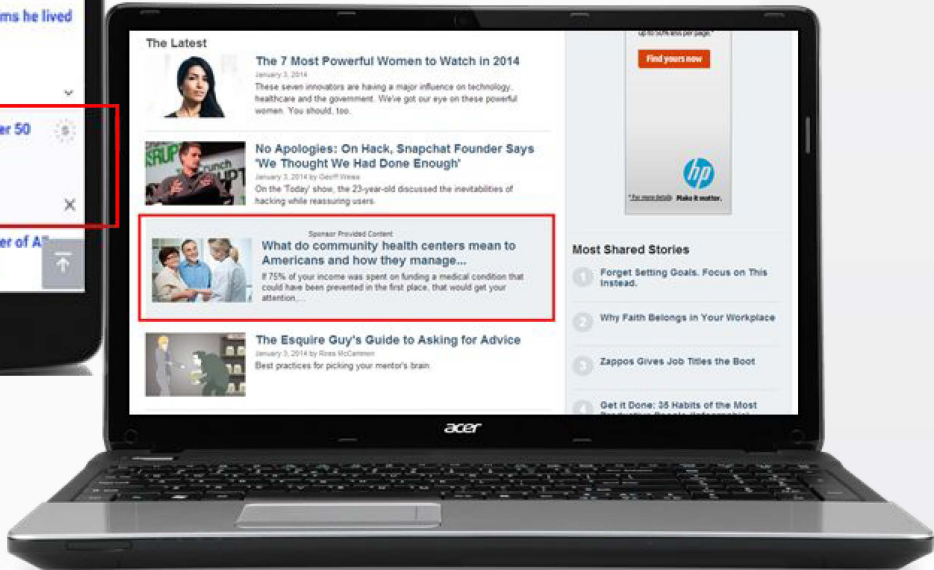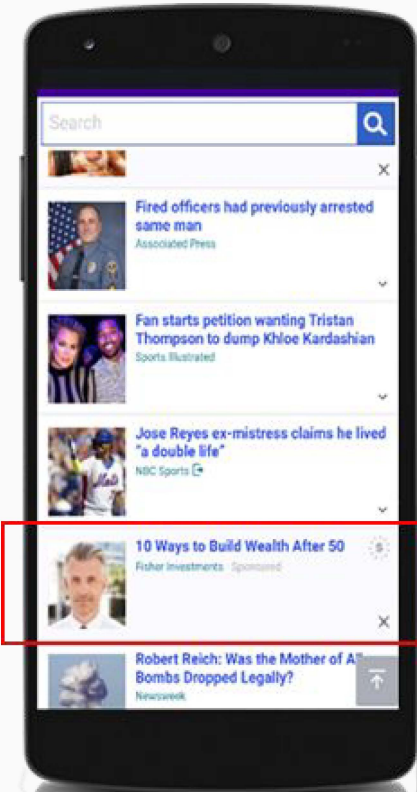
Media Detail - Native

TRC ads could be any of hundreds of formats depending on the device and website or app where it appears.

Mobile in-app ad

Desktop native ad

Mobile pencil ad

Tablet native ad

Media Detail - Native

Native display ads will be served two ways throughout the entire state of California:

1. **By Topic**: Ads will appear on web pages / apps that are related to topics like:

Audience A
- HVAC & Climate Control
- Construction Consulting and Contracting
- Construction & Maintenance
- Green Living and Environmental Issues
- Ecology and Environment
- Consumer Advocacy and Protection

Audience B
- Renewable and Alternative Energy
- Office and Facilities Management
- Energy and Utilities
- Colleges and Universities

Audience C
- Property Management

Behavior topics are defined by the individual ad exchanges. Therefore, all audience categories are not able to be reached through specific topic targeting.

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Native display ads will be served two ways throughout the entire state of California:

2. Native Keyword Targeting: Target a list of up to 500 keywords related to your business, and show Native ads on the web pages where they appear.

- Keyword list to be developed and approved prior to going live.
- Specific keywords will be used to reach audiences that are not reached through the topic targeting.

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Media Detail - Mobile

In 2017, the average US adult will spend 2 hours, 25 minutes per day using mobile apps, a jump of 10.3% over last year, and slightly higher than previously forecast.

Average Time Spent per Day with Mobile Internet Among US Adults, In-App vs. Mobile Web, 2015-2019
hrs:mins

Year	Mobile web	In-app
2015	0:25	1:55
2016	0:26	2:11
2017	0:26	2:25
2018	0:26	2:35
2019	0:27	2:43
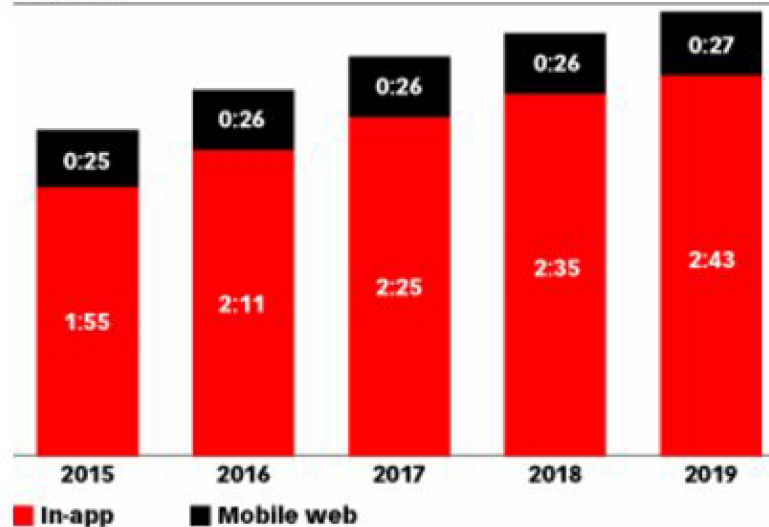
■ In-app ■ Mobile web

Note: ages 18+; time spent with each device includes all time spent with that device, regardless of multitasking; for example, 1 hour of multitasking on an app while on the mobile web is counted as 1 hour for apps and 1 hour for mobile web
Source: eMarketer, April 2017
225369
www.eMarketer.com

Mobile has very strong usage among Hispanics.

72% own a smartphone
10% higher than national average.

66% use Facebook vs 58% general market.

Over 8 hours of internet video watched per month vs. **6.5 hrs** for general market.
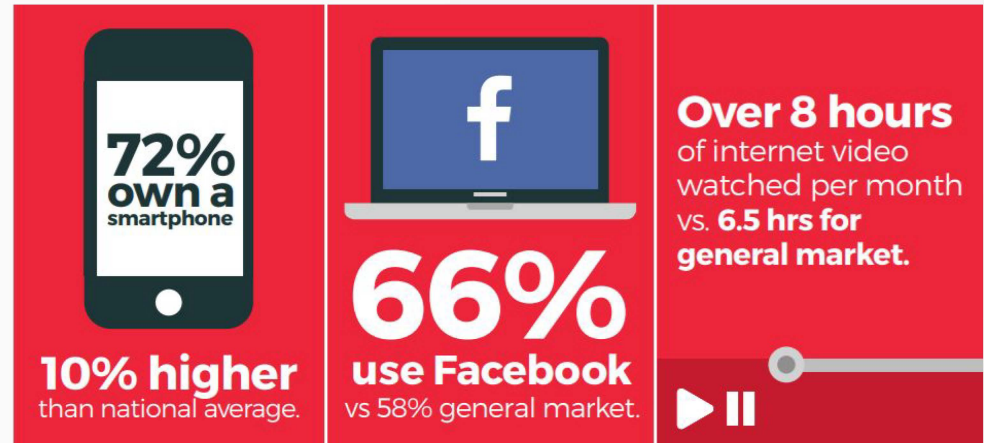
Source; Captura Group 2016 Hispanic Online Market

MOBILE
~**50%** of hispanics live in cellphone-only households.

34% use mobile to purchase products or services.

f SOCIAL
50% more likely than non-Hispanics to share web content on a social channel and **50%** more likely to purchase the products they shared.

▶II VIDEO
66% of Bilingual and Spanish-dominant U.S. Hispanics use video sites, responsible for biggest video growth.

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Media Detail - Mobile
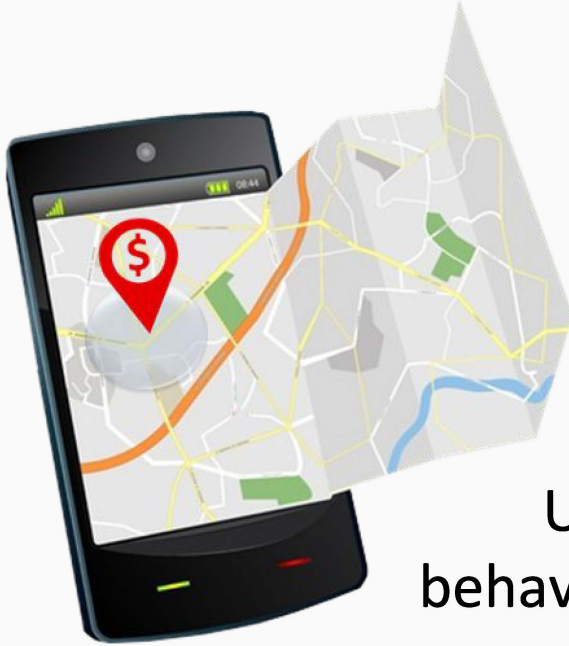
Using location based, demographic, and behavioral targeting to reach consumers with ads on their <u>mobile</u> devices.

Target people wherever they are using their smartphones & tablets – in multiple ways.

Behavioral Targeting
Targeting people who have shown specific behaviors or are in a certain demographic

Location & Brand Targeting
Targeting people who have recently been to a location, business, event or specific brand store

Media Detail - Mobile

Mobile Ads will be served three ways:

1. Behavioral Targeting: Showing ads to people who HAVE RECENTLY SHOWN a certain behavior or are in a certain type of demographic like the ones below:
- Do It Yourselfer
- Recently Moved
- Contractors
- Electronics Enthusiast

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Mobile Ads will be served three ways:

2. Location Targeting: Showing ads to people who <u>HAVE RECENTLY BEEN TO</u> a certain location or type of business or event in the last 30-90 days.
- Will use the list of California collection locations as our target locations.
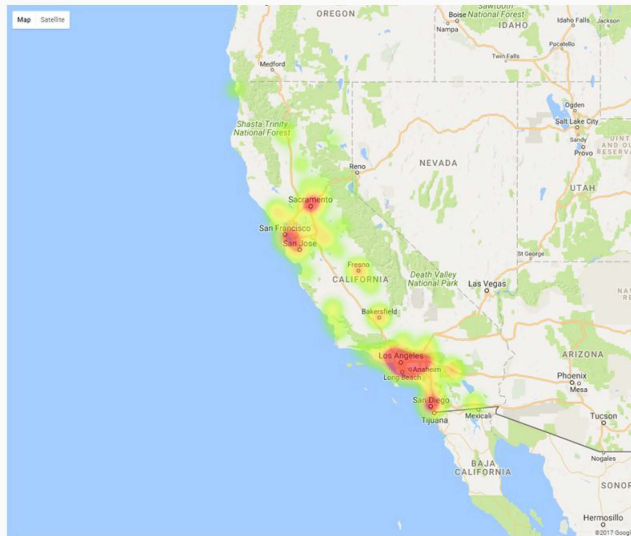
Collection Heat Map
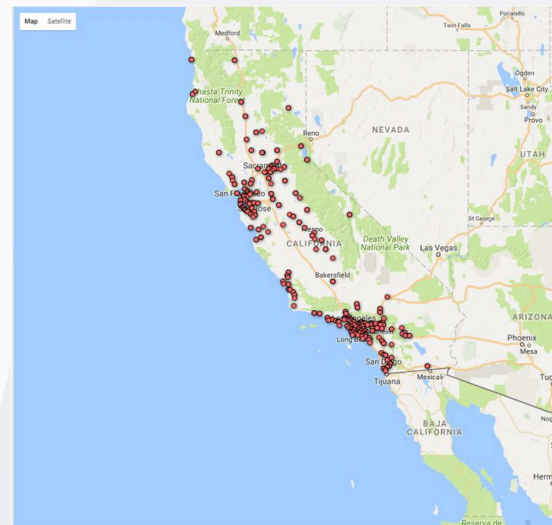
Collection Locations

Mobile Ads will be served three ways:

3. Brand Targeting: Showing ads to people who <u>HAVE RECENTLY BEEN TO</u> a particular brand name store that is available in the targeting database – stores that sell thermostats, **like:**

- Home Depot
- Lowe's
- Walmart
- Best Buy
- Target

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Mobile screens are now a mainstream entertainment consumption experience.

Impact Of Video Ads

	Ad Recall	Brand Awareness	Purchase Intent
Less than :03 of video watched	+47%	+32%	+44%
Less than :10 of video watched	+74%	+65%	+72%

Source: Marketing Land, March 19, 2015

Media Detail - Digital Video

Digital video viewers represent a majority percentage of internet users.

US Digital Video Viewers and Penetration, 2017-2021
millions and % of internet users

2017	2018	2019	2020	2021
221.8	227.5	232.1	236.0	239.2
81.2%	81.9%	82.5%	83.1%	83.5%

■ Digital video viewers   ■ % of internet users
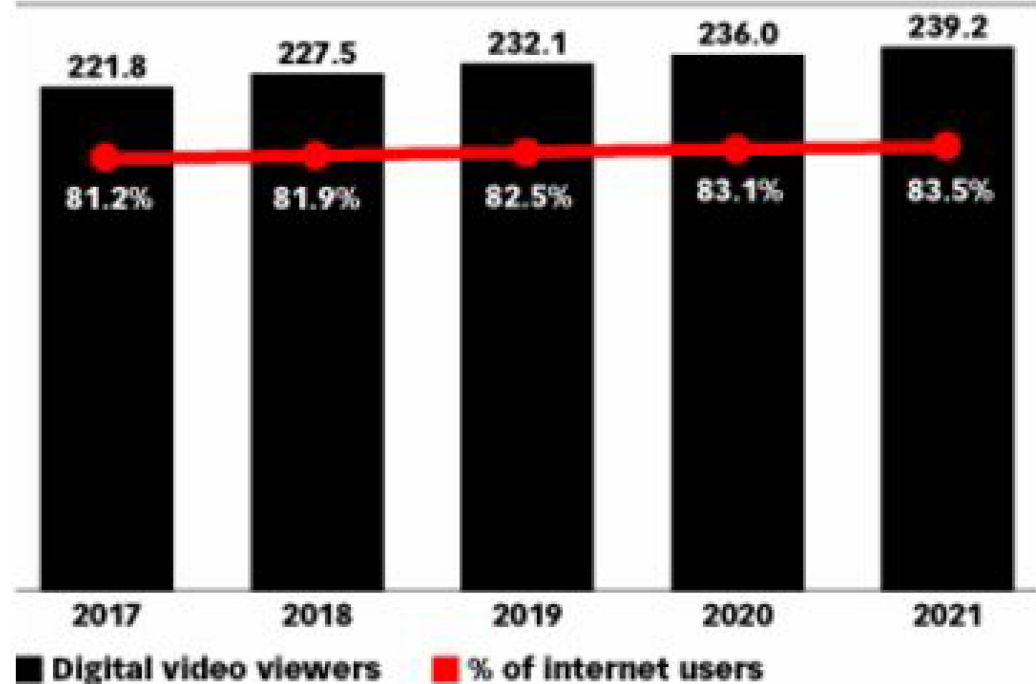
Note: internet users of any age who watch streaming or downloaded video content via any device at least once per month
Source: eMarketer, Feb 2017

223528   www.eMarketer.com

OTT (Over The Top) premium in-stream video will have continued viewing growth over the next three years.

Average Weekly OTT TV Viewing
(hours/week among U.S. Consumers)

Year	Hours
2014	3.6
2015	6.9
2016	9.5
2017	12.1
2018	14.5
2019	17.5
2020	18.9
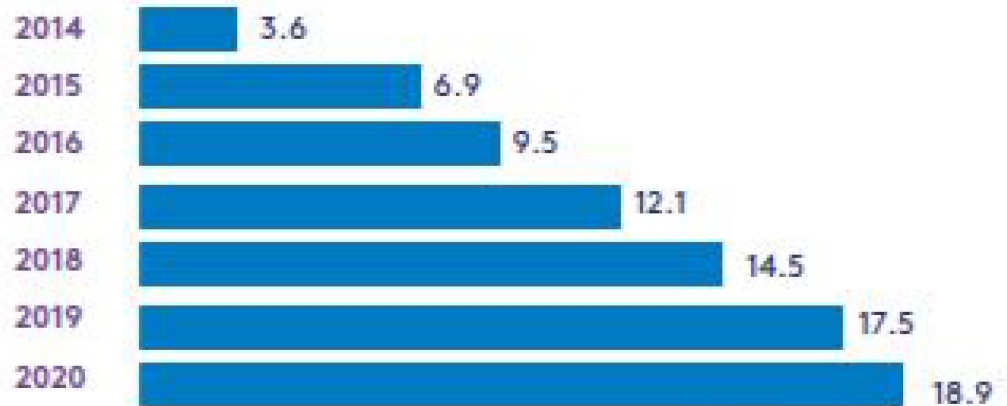
Data: The Diffusion Group

National Average Of Viewers Who Watch 100% Of A Pre-Roll Ad: 70%

Advertisement 0:09

00:00 / 12:43   CC   360p
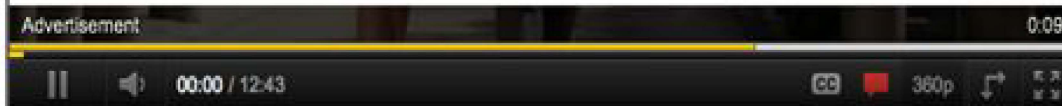
Source: Innovid Interactive Video Advertising Benchmark Report

Media Detail - Digital Video

Video ads will be served two ways throughout the entire state of California. Impressions will be divided so that some of the impressions are served to those individuals whose browsers are set to Spanish.

1. By Behavior: Showing your video ad to specific consumers based on their previous online search behavior, across all devices. The following search behaviors will be considered:

Audience A
- HVAC & Climate Control
- Construction Consulting and Contracting
- Construction & Maintenance
- Green Living and Environmental Issues
- Ecology and Environment
- Consumer Advocacy and Protection

Audience C
- Property Management

Audience B
- Renewable and Alternative Energy
- Office and Facilities Management
- Energy and Utilities
- Colleges and Universities

Advanced Targeting
- Home Type: Apartment, Condo or Single Family
- Primary Residence: Owns or Rents

2. Ad Network:

Home Improvement Video Network

Individuals who are in the process of or thinking about undergoing home improvement renovations and designs. With over 150 sites, this network covers topics such as home design, DIY crafts and tips, interior décor, money saving tips and woodworking.

Technology Video Network

Consists of over 200 websites with content designed specifically to reach individuals interested in and working in technology fields. The sites in this network cover topics such as industry news, gadgets, games and software, programming, new technology releases and computer tips.

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Out-Of-Home Rationale

- OOH will position the TRC message in front of the largest possible audiences.
- Billboard creative will feature TRC website, potentially driving traffic.
- Locations will be selected to provide maximum exposure. Boards will be identified that have the highest impression counts when we go to market.
- Digital units save on vinyl production costs.

Media Detail - Digital OOH

Digital Out-of-Home units will be purchased throughout three major markets affording us maximum potential impressions. These are:

- LA, Inland Empire/Orange County
- Bay Area
- Central Valley

Billboards will be selected (pending available inventory) to specifically reach San Bernardino and Stockton communities supporting Group A outreach.

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Media Detail - Digital OOH
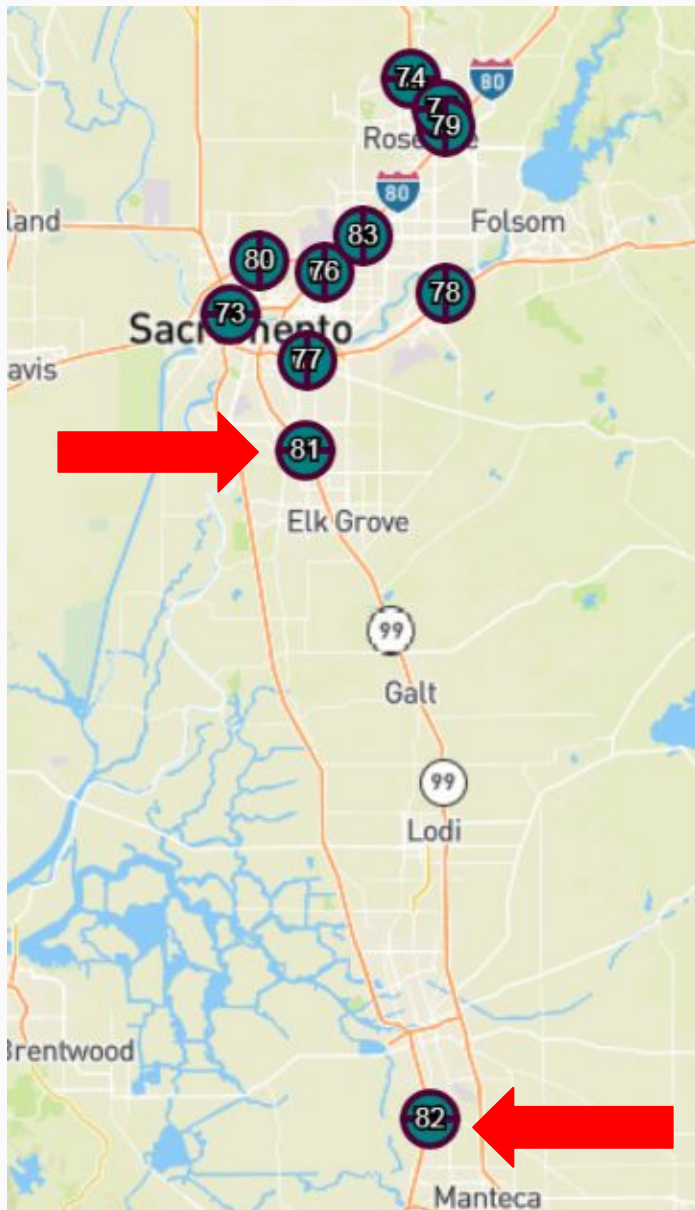
Sacramento Area

- 11 units available
- 22 faces

Media Detail - Digital OOH

Los Angeles

- 30 units available
- 60 faces

Media Detail - Digital OOH

San Francisco Bay Area

- 14 units available
- 28 faces
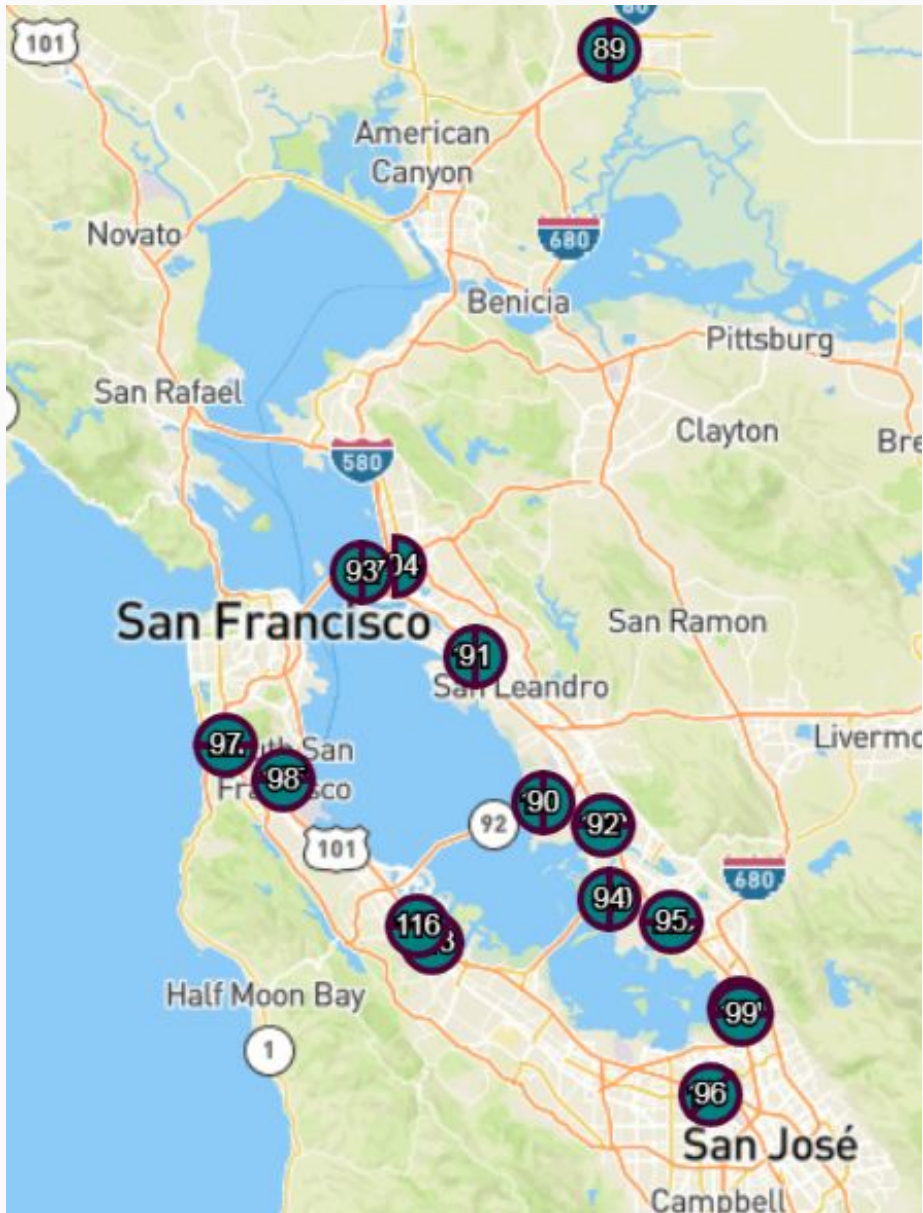
In some situations, local municipalities are provided with available billboard inventory to promote community information.

In addition to paid OOH, TRC is pursuing opportunities to display its message on this free inventory.

Ideally, pro bono billboards will align with the upcoming utility company outreach program.

Media Flight Detail

Flight I
- Digital Native
- Digital Mobile

Flight II
- Digital Video
- Digital OOH

Flight III
- Digital Video
- Digital OOH

Media Budget

Total 15-Month Spending: $224,100

- Flight I
  - $49,500
  - Approximately 8,100,000 digital impressions

- Flight II:
  - $87,300
  - Approximately 2,225,000 digital impressions

- Flight III:
  - $87,300
  - Approximately 2,225,000 digital impressions

Total digital impressions does not take into account OOH impressions since these impressions will not be available until actual units and posting dates are selected.

Metrics and Analysis

Media Reporting Metrics

After reviewing the 2017 digital metrics for the Facebook and Ad Network campaigns for the state of California the following key performance indicators will be put in place for the 15-month campaign:

- .75% click through rate (National Average .07%)
  - Total Clicks / Total impressions delivered
- 1.0% engagement rate
  - Total Clicks + Click Conversions + View Through Conversions / Total Impressions Delivered

Web-site Reporting Metrics

Website analytics will demonstrate increased engagement with the TRC site. Specifically, we are aiming to accomplish the following:

- Increase time spent on site from :15 to 2:00 minutes
- Increase average pages/session from 1.19 to 2.0
- Decrease bounce rate from 92% to 85%

Reporting metrics will be evaluated in real-time with performance being reviewed weekly.

By looking at real-time performance trends, adjustments can be made. These adjustments could include:
- Reallocating dollars to better performing platforms.
- Revising the creative message.

Messaging

Creative executions will follow the TRC branding being deployed in all media to effect synergy among all advertising.

Based on the results of audience testing, messaging vary depending on the targets.

Thermostat Recycling™
CORPORATION
an industry-funded non-profit

Out-of-Home creative will include Spanish copy.

The digital video to be produced will include a Spanish version which will be trafficked to Spanish-speaking targets via the digital platforms outlined above.

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Flowchart Handout

THERMOSTAT RECYCLING CORPORATION
2017 / 2018 CALLIFORNIA EFFORT

10/7/17

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL NET SPENDING
WEEK OF (Monday start):	30 6 13 20	27 4 11 18 25	1 8 15 22	29 5 12 19	26 5 12 19	26 2 9 16 23	30 7 14 21	28 4 11 18	25 2 9 16 23	30 6 13 20	27 3 10 17 24	1 8 15 22	29 5 12 19	26 3 10 17 24	
DIGITAL DISPLAY*															
Native *Topic*	600,000 Imp $3,000	600,000 Imp $3,000	600,000 Imp $3,000												$9,000
Keyword	1,000,000 Imp $5,000	1,000,000 Imp $5,000	1,000,000 Imp $5,000												$15,000
Mobile *Behavior, Location, Brand*	1,133,300 Imp $8,500	1,133,300 Imp $8,500	1,133,300 Imp $8,500												$25,500
DIGITAL VIDEO*															
Behavior					325,000 Imp $5,525	325,000 Imp $5,525	325,000 Imp $5,525				325,000 Imp $5,525	325,000 Imp $5,525	325,000 Imp $5,525		$33,150
Ad Network *Home Improvement and Technology Ad Networks*					325,000 Imp $5,525	325,000 Imp $5,525	325,000 Imp $5,525				325,000 Imp $5,525	325,000 Imp $5,525	325,000 Imp $5,525		$33,150
Ad Networks - Browser set to Spanish					100,000 Imp $1,700	100,000 Imp $1,700	100,000 Imp $1,700				100,000 Imp $1,700	100,000 Imp $1,700	100,000 Imp $1,700		$10,200
OUT OF HOME **															
Los Angeles Digital Billboards 3 Billboards (Rotate faces each week)					▉ ▉	▉					▉ ▉	▉			$39,600
Sacramento Digital Billboards 3 Units (Rotate faces each week)					▉ ▉	▉					▉ ▉	▉			$22,500
San Francisco Digital Billboards 3 Billboards (Rotate faces each week)					▉ ▉	▉					▉ ▉	▉			$36,000
TOTAL MEDIA SPENDING:	**$16,500**	$16,500	$16,500		$45,450	$29,100	$12,750				$45,450	$29,100	$12,750		**$224,100**

* Impression allocation per platform may change once the buy is put into market. Impressions will be served based on what inventory is available.

** Cost per unit is an average based on all of the units available in the market. Total expenditure may change once individual units are selected.