

"I certify that the work included in this portfolio is my own original work. Work included which was conducted as a part of a team or other group is indicated and attributed as such- the other team members are named and a true description of my role in the project is included."

Kaitlin

KATIE MCTIGUE

Designer • Developer

Indiana University Bloomington

Kaitlin McTigue | IU002099871



PORTFOLIO

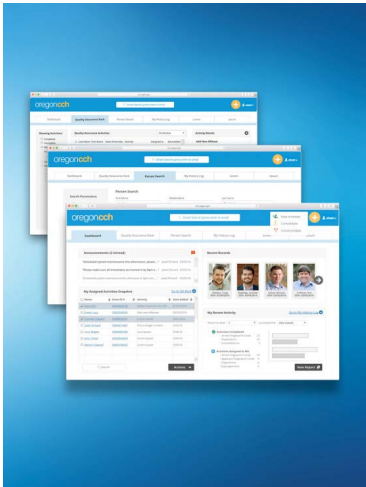


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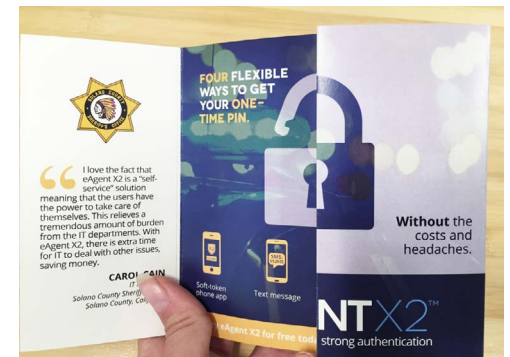


eAgentX2 Trifold

DIVERSE COMPUTING | PANASONIC

The primary target market of Diverse Computing's eAgent X2 Advanced Authentication software includes IT professionals and coordinators at criminal justice agencies. However, we also shared this trifold with prospective vendor partners (including representatives of Panasonic) who were considering integrating X2 into their own solutions. Therefore, this piece needed to communicate both high-level and low-level information in a concise and interesting manner.

Due in part to both security trends and a recent FBI CJIS mandate, criminal justice agencies are currently being inundated with advanced authentication marketing. We needed X2 to stand out. I experimented with several attention-commanding fold layouts for the brochure. Before I even began designing I held three meetings with inside sales reps, had a consultation with our commercial printer, and went through countless paper prototypes.





“The eAgent X2 advanced authentication card system works very well for us. It meets all compliance requirements, and it was implemented quickly and efficiently by Diverse Computing. We are also very happy with customer support. In the time we've had eAgent, the system has never been down.

JULIO PEREZ

Hollandale Beach Police Department
Hollandale, Florida



“I love the fact that eAgent X2 is a “self-service” solution meaning that the users have the power to take care of themselves. This relieves a tremendous amount of burden from the IT departments. With eAgent X2, there is extra time for IT to deal with other issues, saving money.

CAROL CAIN

IT Manager,
Solano County Sheriff's Office
Solano County, California

WHAT'S NEXT FOR YOUR AGENCY?



Talk to an
eAgent expert



Schedule an
online demo



Set up a
free trial

eAGENTTM
SOLUTIONS



diversecomputing.com
sales@diversecomputing.com
866.656.3338 ext. 3

Reliable **advanced**
authentication.



Without the
costs and
headaches.

eAGENT X2TM
two-factor strong authentication

eAGENT X2TM Why choose eAgent X2?



Compliant with the CJIS Security Policy.

eAgent X2 is a reliable software solution that meets all of the requirements for the advanced authentication (AA) mandate in the CJIS Security Policy. If your officers or staff access sensitive criminal justice information from non-secure locations, your agency will need AA for those users.

More affordable, more sustainable.

Unfortunately, many AA solutions are designed to keep costing your agency money. Overly complicated hardware solutions (like biometric) constantly break, wasting your IT department's time with troubleshooting and expensive repairs. In contrast, eAgent X2 offers four low cost AA options for getting your second factor-- a printable paper token, a smart phone app, hard-token, or SMS.



FOUR FLEXIBLE WAYS TO GET YOUR ONE- TIME PIN.



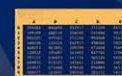
Soft-token
phone app



Text message



Hard-token
hardware solution



Printable
paper token



Tech support you can count on.

Besides being friendly on your agency's budget, eAgent X2 also relieves a lot of headaches for your IT support staff. Many issues like misplaced paper tokens can be resolved directly by the user. In the rare event of a more complicated issue, we have technical support staff on-call 24/7 that will quickly resolve any problems, usually on the first call.

We know the criminal justice community.

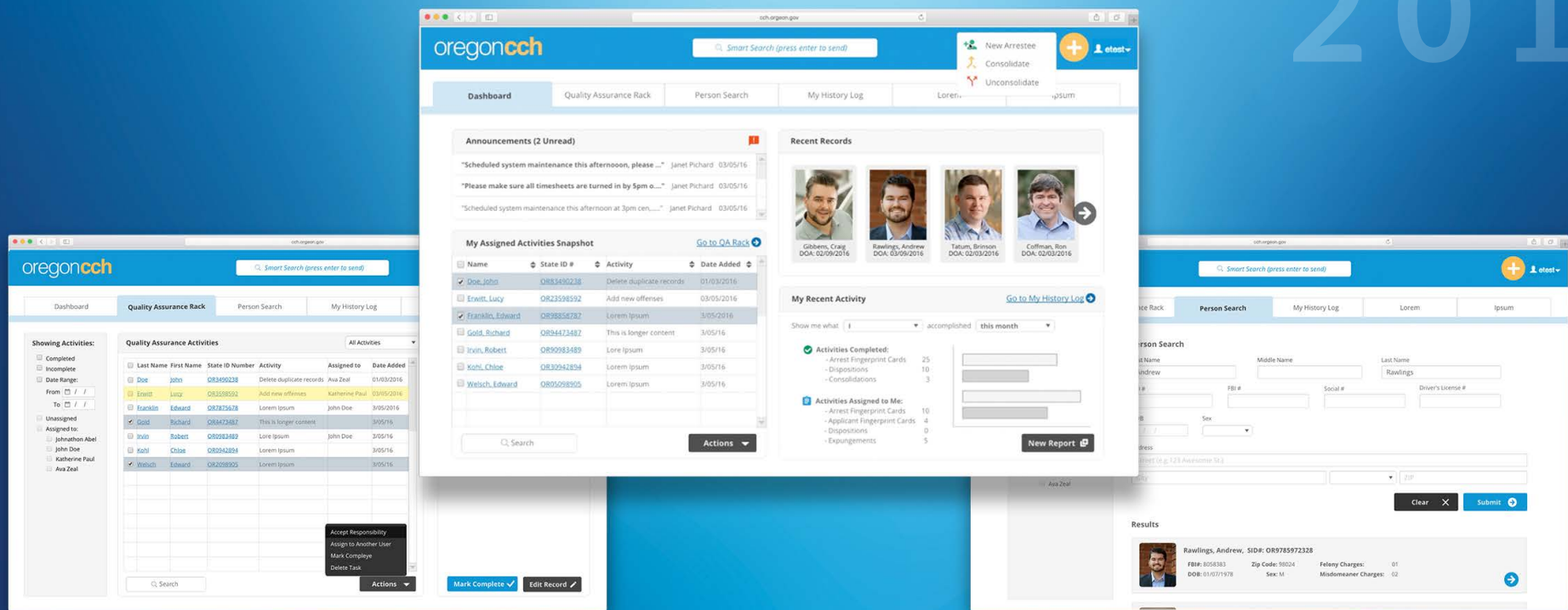
Since 2001, we have been developing software solutions for criminal justice agencies. Many of our staff have past experience with law enforcement and dealing with the CJIS Security Policy. Why is this important to you? We truly understand your agency's needs and requirements, and eAgent X2 was designed specifically for criminal justice users. And we will continually keep up with changes to CJIS Security Policy, so you can rest assured that eAgent X2 will maintain your compliance well into the future.



Is eAgent X2 right for your agency?

To set up a free demo, email us at sales@diversecomputing.com!

Try eAgent X2 for free today: call 866-656-3338 ext. 3



Oregon Computerized Criminal History

OREGON STATE POLICE | DIVERSE COMPUTING

I created this low fidelity prototype and produced [this video](#) for a proposal that Diverse Computing presented to the Oregon State Police. My intentions were twofold: this prototype serves as spec work to persuade OSP to award us the contract, but would (and did) become the blueprint for the software application we will actually build (we were awarded the contract!). When it is completed, Oregon CCH will be a powerful criminal record management system that also includes intuitive and adaptive task management

tools for the teams of clerks that use the system.

The stakes were very high when I designed this system, as a nearly 6 million dollar deal was on the line. The request for proposal (RFP) procurement process is a series of daunting “rounds” of elimination with a very short time frame between each deadline, and, consequentially, I was given less than a week to singlehandedly produce this entire prototype and accompanying video. To add to the pressure, there was no current system in place to work off of, so I was given only big-picture requirements as a basis for my design.

This all seemed formidable at first, but created a tremendous opportunity for me to be imaginative. I am proud of the end result of this project, both from a personal and technical standpoint. However, in addition to the hard skills I refined throughout this process, I learned invaluable time management lessons that could hardly be acquired in any other way. After working on Oregon CCH, I feel that I am better equipped to break a large, scary problem down into manageable pieces that can be completed on a tight deadline.

oregoncch

Smart Search (press enter to send)

+ latest

Dashboard

Quality Assurance Rack

Person Search

My History Log

Lorem

Ipsum

Announcements (2 Unread)

Scheduled system maintenance this afternoon, please ...

Janet Pichard 03/05/16

Please make sure all timesheets are turned in by 5pm o...

Janet Pichard 03/05/16

Scheduled system maintenance this afternoon at 3pm cen...

Janet Pichard 03/05/16

My Assigned Activities Snapshot

Go to QA Rack

Name	State ID #	Activity	Date Added
<input checked="" type="checkbox"/> Doe, John	OR83490238	Delete duplicate records	01/03/2016
<input checked="" type="checkbox"/> Ernett, Lucy	OR2358552	Add new offenses	03/05/2016
<input checked="" type="checkbox"/> Franklin, Edward	OR98582782	Lorem Ipsum	3/05/2016
<input checked="" type="checkbox"/> Gold, Richard	OR6473487	This is longer content	3/05/16
<input type="checkbox"/> Ivins, Robert	OR02983489	Lorem Ipsum	3/05/16
<input type="checkbox"/> Kohl, Chloe	OR30942894	Lorem Ipsum	3/05/16
<input type="checkbox"/> Welsch, Edward	OR0508905	Lorem Ipsum	3/05/16

Search

Actions

Recent Records

Gibbens, Craig

DOA: 02/09/2016

Rawlings, Andrew

DOA: 03/09/2016

View

Coffman, Ron

DOA: 02/03/2016

→

My Recent Activity

Go to My History Log

Show me what: my entire team accomplished this week

Activities Completed:

Arrest Fingerprint Cards

25

Dispositions

10

Consolidations

3

Activities Assigned to Me:

Arrest Fingerprint Cards

10

Applicant Fingerprint Cards

4

Dispositions

0

Expungements

5

New Report

oregoncch

Smart Search (press enter to send)

+ latest

Dashboard

Quality Assurance Rack

Person Search

My History Log

Lorem

Ipsum

Search Parameters:

☐ Lorem Ipsum
☐ Lorem Ipsum
☐ Arrest date(s):

From / /

To / /

☐ Lorem Ipsum
☐ Record assigned to:
☐ Johnathon Abel
☐ John Doe
☐ Katherine Paul
☐ Ava Zeal

First Name

Middle Name

Last Name

SID #

FBI #

Social #

Driver's License #

DOB

Sex

Address

Street (e.g. 123 Awesome St.)

City

ZIP

Clear

Submit

Results

Rawlings, Andrew, SID#: OR9785972328

FBI#: 8058385

Zip Code: 98024

Felony Charges: 01

DOB: 01/07/1978

Sex: M

Misdemeanor Charges: 02

oregoncch

Smart Search (press enter to send)

+ latest

Dashboard

Quality Assurance Rack

Person Search

My History Log

Lorem

Ipsum

New Arrestee

UPLOAD IMAGE

Gibbens, Craig

SID#: OR90238959645

Social:

FBI#:

DOB:

Last Arrest:

Save and Exit

Cancel

Criminal Personal Information

Actions

State ID Number (SID)

OR9785972328

Social Security Number

FBI Number

Driver's License Number

State

Year

Master Name

First Name

Middle Name

Last Name

Demographics

Race

Gender

Height

Weight

Date of Birth

/ /

Scars, Marks, & Tattoos:

Address and Phone Number

Different from address on

oregoncch

Smart Search (press enter to send)

+ latest

Dashboard

Quality Assurance Rack

Person Search

My History Log

Lorem

Ipsum

New Arrestee

UPLOAD IMAGE

Gibbens, Craig

SID#: OR90238959645

Social:

FBI#:

DOB:

Last Arrest:

Save and Exit

Cancel

Charge Summary:

Actions

Felony Charges: 00

Felony Convictions: 00

Misdemeanor Charges: 00

Misdemeanor Convictions: 00

Unknown Level Charges: 00

Unknown Level Convictions: 00

Failure to Appear: 00

Unknown Dispositions: 00

Incarcerations: 00

Arrest Cycles

No arrest events have been added yet.

New Arrest Event

New Charge

New Disposition

New Custodial

oregoncch

Smart Search (press enter to send)

+ latest

Dashboard

Quality Assurance Rack

Person Search

My History Log

Lorem

Ipsum

New Arrest Event

Offense Date / /

Arrest Date / /

Local Number

Arresting Officer

Arresting Agency

Book Agency

Charge

Charge Literal

Counts

Select Severity

Select Class

Court Disposition

Cause Number

Count

Class

Filed

Level

Cause Number

Time

Probation

Suspended

Sex Offense

Sexual Predator

Domestic Violence

Cancel

Add Arrest

oregoncch

Smart Search (press enter to send)

+ latest

Dashboard

Quality Assurance Rack

Person Search

My History Log

Lorem

Ipsum

Showing Activities:

Completed

Incomplete

Date Range:

From / /

To / /

Unassigned

Assigned to:

Johnathon Abel

John Doe

Katherine Paul

Ava Zeal

Quality Assurance Activities

All Activities

Last Name	First Name	State ID Number	Activity	Assigned to	Date Added
Doe	John	OR3490238	Delete duplicate records	Ava Zeal	01/03/2016
Ernett	Lucy	OR3558592	Add new offenses	Katherine Paul	03/05/2016
Franklin	Edward	OR7873678	Lorem Ipsum	John Doe	3/05/2016
<input checked="" type="checkbox"/> Gold	<input checked="" type="checkbox"/> Richard	<input checked="" type="checkbox"/> OR6473487	<input checked="" type="checkbox"/> This is longer content	<input checked="" type="checkbox"/> John Doe	<input checked="" type="checkbox"/> 3/05/16
<input checked="" type="checkbox"/> Ivins	<input checked="" type="checkbox"/> Robert	<input checked="" type="checkbox"/> OR02983489	<input checked="" type="checkbox"/> Lorem Ipsum	<input checked="" type="checkbox"/> John Doe	<input checked="" type="checkbox"/> 3/05/16
<input checked="" type="checkbox"/> Kohl	<input checked="" type="checkbox"/> Chloe	<input checked="" type="checkbox"/> OR0942894	<input checked="" type="checkbox"/> Lorem Ipsum	<input checked="" type="checkbox"/> John Doe	<input checked="" type="checkbox"/> 3/05/16
<input checked="" type="checkbox"/> Welsch	<input checked="" type="checkbox"/> Edward	<input checked="" type="checkbox"/> OR0508905	<input checked="" type="checkbox"/> Lorem Ipsum	<input checked="" type="checkbox"/> John Doe	<input checked="" type="checkbox"/> 3/05/16

Search

Actions

Activity Details

Mark Complete

Edit Record

Record: Ivins, Robert, 909834389

Assigned to: John Doe

Date Added: 3/05/16

Task Information:

Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Donec fringilla vestibulum est, ac pellentesque odio maximus vel.

Mauris eu sagittis sem.

Suspendisse sed porttitor est, vitae ornare lectus.

High resolution versions of all images are available at [KatieMcTigue.com](https://www.KatieMcTigue.com)

Tennessee Consolidated Record Management System

The Team

Brinson Tatum: Team Leader
 Ashley Augustine: Project Manager
 Rick McDonnell: Full Stack Developer
 Ken Treece: Database Designer & Back End
 Myself: UX Designer & Front End Developer

TENNESSEE BUREAU OF INVESTIGATION | DIVERSE COMPUTING

Tennessee CRMS is my first project as a front end developer at Diverse Computing, and also my first experience working on a development team using the Agile project management philosophy. This project involves redesigning the interface of TBI's decade-old record management software, and optimizing it for the modern web using frameworks including Angular2 and Bootstrap 3.

The Scope

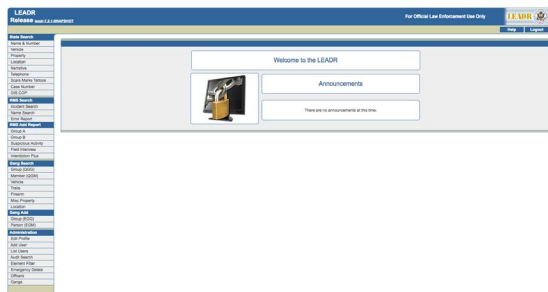
From May 2016 to August 2017, we will recreate this platform as a mobile first, responsive, WCAG AAA compliant web application. The front end is the primary concern of our efforts, yet inevitably we will rewrite a good portion of the back end as well in order to correct some inefficient aspects of the original application.

The Beginning

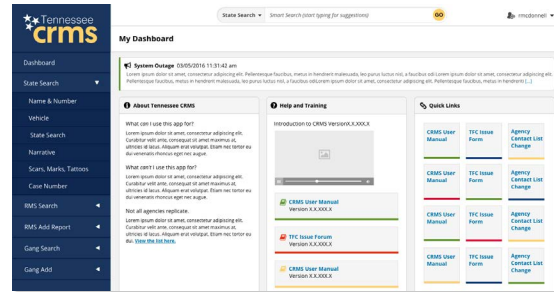
We (Rick, Brinson and I) began this project with a week-long road trip through Tennessee, on which we visited a variety of law enforcement agencies to observe daily active users. Using feedback provided by these users, I began creating mock ups of the user interface and we began writing user stories.

The End

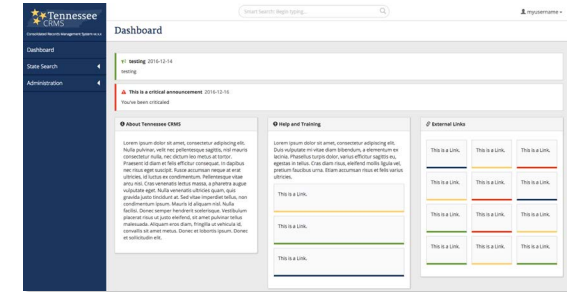
From a technical standpoint, the end goal of this project is to create an application that will conform to modern web standards, deliver fast and high performance querying services, and meet the security requirements of the CJIS security policy. Yet we also want to deliver a product that is so intuitive to use that it significantly cuts down training time.



The original system, designed in 2004



My low fidelity prototype



The new system on the dev server

Branding CRMS

As a part of this contract, I was given the task of branding the application. I created a logo, chose fonts for the application, developed a color palette, and established cohesive reoccurring graphical elements. I wanted to create a brand identity that would be memorable, modern, clean, and approachable. Yet I also wanted to ensure that the app fit with the Tennessee Bureau of Investigation's established presence, which is that of a serious and authoritative institution. To achieve a sense of conformity, I based my color palette and typography on the State of Tennessee's website, as well as TBI's website. I also incorporated elements from Tennessee's flag and state seal into my design.



Tennessee CRMS

State Search Smart Search (start typing for suggestions) rmcddonnell

Member Profile

PrettyLongLastName, Jane

[BACK](#) [PREVIEW](#) [PRINT](#)

Record Preview

Date of Birth: Member, Crips (Nashville Division) Last Arrest: Robbery, 11/20/16

Sex: F Affiliated: GWAP City (Memphis subgroup) Brianwood Police Department

Race: African American

Last Update By: Rick McDonnell, TNTB10000 Tennessee Bureau of Investigation 8/20/16

[+ Upload Photo\(s\)](#)

Overview Affiliations & Related Property Activities Notes

Identification [EDIT SECTION](#)

Name First Name Middle Name Last Name

Jane Jane PrettyLongLastName

Aliases

Name Updated By

Jana Doe Rick McDonnell, TBI, 8/20/16 10:31 am

Jane Doe Rick McDonnell, TBI, 8/20/16 10:31 am

[+ Add New Alias](#)

IDs

Type of ID Number Issuer Updated By

Alerts [EDIT SECTION](#)

Cautions

00 - Armed and dangerous Updated By: Rick McDonnell, TBI, 8/20/16

10 - Martial arts expert Updated By: Rick McDonnell, TBI, 8/20/16

20 - Known to abuse drugs Updated By: Rick McDonnell, TBI, 8/20/16

Tennessee CRMS

State Search Smart Search (start typing for suggestions) rmcddonnell

Subgroup Detail

AAA DCI Test Gang, AAAA Test Subgroup

[BACK](#) [PREVIEW](#) [PRINT](#)

Record Preview

Parent Group: AAA DCI Test Gang

Subgroup: AAAA DCI Test Gang

Status: Active

Members: 5 identified, 10 - 25 estimated

Point of Contact: Rick McDonnell, TNTB10000 rmcddonnell@diverscomputing.com 850-456-3333 ext 277

Last Update By: Rick McDonnell, TNTB10000 Tennessee Bureau of Investigation 8/20/16

Overview People Property

General Information [EDIT SECTION](#)

Admin Information

NKIC (NIC) Status Active Established Date 01/01/2012 Termination Date (none)

Description Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus viverra est quam, vitae mollis ante cursus sit amet. Donec vitae magna maximus, luctus metus quis, elementum lorem. Sed et purus quis massa aliquam porttitor. Vivamus dignissim dui tortor. Proin aliquet lorem dolor, sed pulvinar lectus sollicitudin semper.

Membership Information

Member Low Estimate 25 Member High Estimate 75

Initiation

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus viverra est quam, vitae mollis ante cursus sit amet. Donec vitae magna maximus, luctus metus quis, elementum lorem. Sed et purus quis massa aliquam porttitor.

Locations [EDIT SECTION](#)

Gang Headquarters 123 Gang St, Nashville, TN, XXXXX Updated By: Rick McDonnell, TBI, 8/20/16 [View \(1\) Image](#)

Graffiti Hot Spot 123 Gang St, Nashville, TN, XXXXX Updated By: Rick McDonnell, TBI, 8/20/16 [No Images](#)

[+ Add New Location](#)

Last Update By: Rick McDonnell, Tennessee Bureau of Investigation, 8/20/16, 10:31 am

Tennessee CRMS

Dashboard Administration Announcements Agencies System Logs Users Colleges Gangs Officers

Annual Audit Search

* ORI TNTB000000 * Year range YYYY to YYYY

[CLEAR](#) [SUBMIT](#)

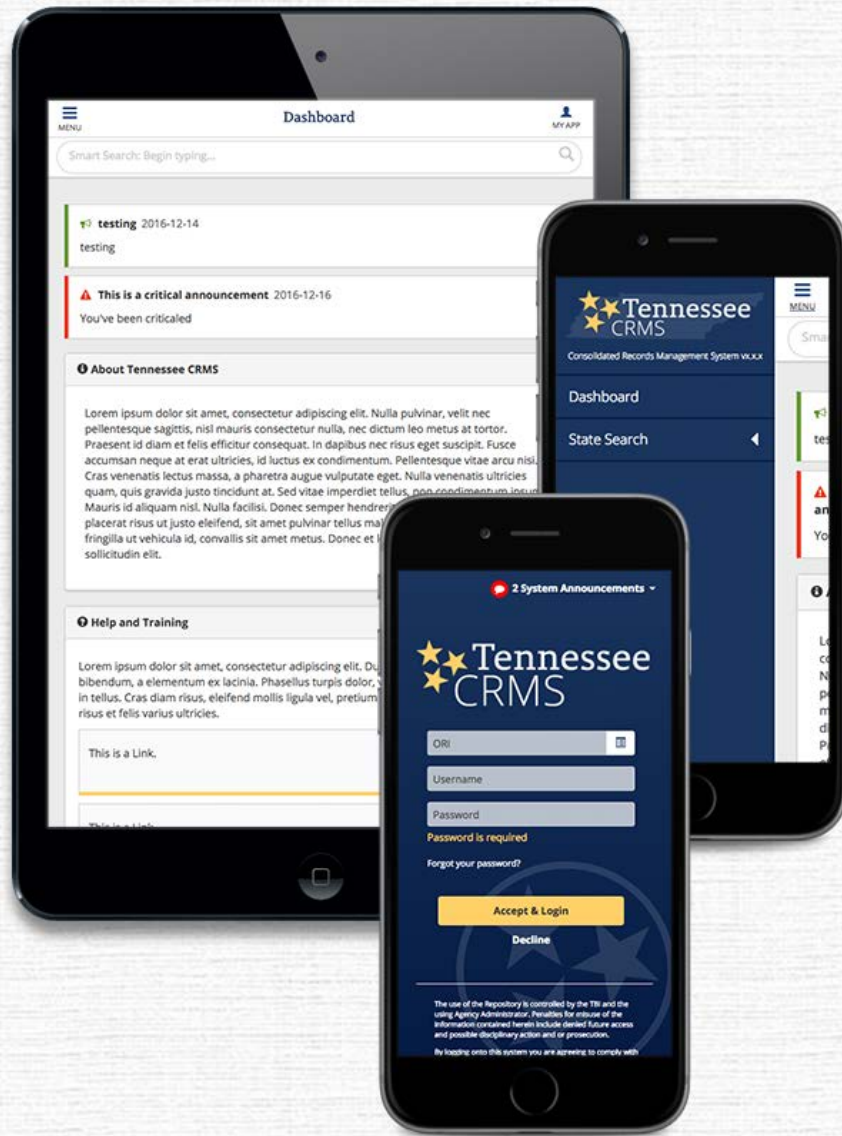
Search Parameters: ORI: TNTB10000, From 2014 to 2016 Displaying records: 1 - 3

#	ORI	# of Users	Organization Name	Year	Total	Top Searcher	Top Searcher Total
1	TNTB10000	10	Tennessee Bureau of Investigation	2014	2105	DH06658	1420
2	TNTB10000	8	Tennessee Bureau of Investigation	2015	4127	DH06658	1457

Username	Name	ORI	Organization Name	Year	Total Queries
DH060312	Abercorn, Ashley	TNTB100061	Tennessee Bureau of Investigation	2015	243
DH044356	Barber, Bob	TNTB100061	Tennessee Bureau of Investigation	2015	1457
DH060124	Carter, Richard	TNTB100061	Tennessee Bureau of Investigation	2015	56
DH324455	Davis, Chelsea	TNTB100061	Tennessee Bureau of Investigation	2015	123
DH060312	Fairfield, Chelsea	TNTB100061	Tennessee Bureau of Investigation	2015	124
DH023445	McDonnell, Rick	TNTB100061	Tennessee Bureau of Investigation	2015	457
DH765567	McTigue, Kaitlin	TNTB100061	Tennessee Bureau of Investigation	2015	1245

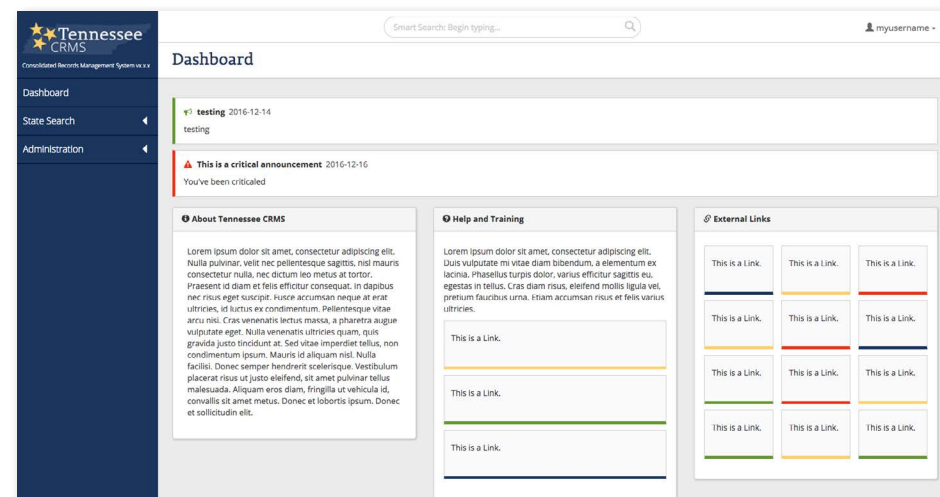
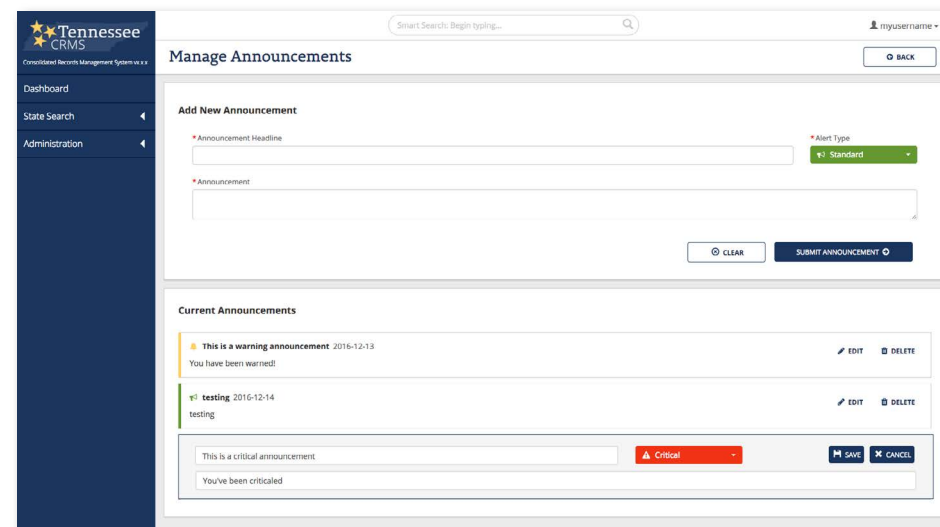
My Learning Experience

This was my first major project as a Front End Developer, and also my first time using the Agile project management method. In almost all of my UI Design projects up until this point, I have worked tirelessly to design a system for months, and then put it into someone else's hands when it's time for production. It has been an amazing experience to be involved at every step of the way of this project, from early focus groups with users to demo day. Undoubtedly, the best skill I have taken away so far is Angular2 development chops. While I was originally skeptical of a framework that puts so much of its logic in the view, I have come to appreciate its powerful efficiency and time saving components.



The End Product

As of the time of this writing, we are on our fourth sprint, and about one-fourth of the way through. The screenshots on this page represent some of components of the application that I singlehandedly designed and coded the user interface for using Angular2, Bootstrap 4, and SASS.



A woman with blonde hair in a high ponytail, wearing sunglasses and a blue dress, is sitting on a wooden ledge. She is holding and reading a magazine. The background is a light blue wall with a textured, painterly appearance. The overall mood is artistic and contemplative.

Women Drowning

A PHOTOGRAPHIC EXPLORATION

This is a collection of photographs highlighting my recent exploration of working with models.

All of these photographs emerged from a common place in my artistic development. My goal while directing these models was to reflect a feeling of insecurity and tenderness, masked by a facade of confidence and poise.

To some degree, each woman is "drowning" within the narrative of the photograph that contains her.

The most important part of this project for me was the learning experience of evoking expression in models and staging a cohesive narrative.

2014-2015



“To some degree, each woman is ‘drowning’ within the narrative of the photograph that contains her.”



High resolution versions of all images are available at KatieMcTigue.com

Red Sol Campaign

**FLORIDA STATE UNIVERSITY
CENTER FOR HISPANIC MARKETING COMMUNICATION**

This research paper synthesizes a semester-long project I completed in December 2015, in which I studied the solar energy industry in states that have lenient and encouraging clean energy laws (unfortunately not including my home state of Florida). I then devised a marketing strategy for targeting an under-emphasized consumer group in the solar industry: Latinos. I fabricated the fictional solar panel distribution company, Red Sol as a venue for examining the subtleties of the industry.



I. Introduction

The challenge of marketing solar panels to Hispanics, including product, situational analysis, and competitive environment

As Korzenny & Korzenny (2012) stress in *Hispanic Marketing: Connecting with the New Latino Consumer*, the Hispanic population in the US has increased five-fold since 1980, to approximately 50,000,000 today. In California alone, there are 16 million legally documented Latinos, making up 39% of the state population (Lopez, 2014). Hispanics are also the fastest growing segment of Americans, and over the past five years, the average Hispanic family's annual income has held closer to the national average than ever before. Altogether, it is evident that Hispanics make up a crucial sector of the economy, worthy of marketers' time and attention. Yet some businesses, and even industries as a whole, have been slow and inefficacious in their attempts to target this increasingly lucrative market. One of those industries is solar energy.

Based on a study conducted by McCabe, Corona, & Weaver (2012), it has been concluded that Latinos represent a significant opportunity for marketing solar and eco-friendly goods. The study suggests that Hispanics have notably higher levels of interest than the general population in sustainable technologies, stating, "in particular, [Hispanics] value solar energy—installing nearly twice as many solar water heaters as non-Hispanics." (McCabe, et al., 2012: paragraph 2). The fictional solar distribution company, Red Sol, plans to target Hispanics in Southern California, with a special focus on those Hispanics that already have solar water heaters in place.

Like most California solar energy companies, Red Sol will focus on appealing to customers using an opportunistic price strategy, emphasizing potential consumer savings. Yet more so than competing campaigns, Red Sol's campaign will emphasize the positive impact of Red Sol panels on the environment and the user's family. However, Red Sol will differentiate itself from other companies not only in its progressive marketing, but also in the structure of the service itself. By collaborating with local utility companies in Southern California, consumers will remain connected to the city's grid system. This solution limits risk on the part of the customer, sends an amiable message to utility companies that may fear becoming obsolete, and, most importantly, offers Red Sol an "in" for reaching customers.

Red Sol plans to test this potentially revolutionary business model on Hispanics because of their tremendous market potential for green products (see section III), and because Red Sol believes this business model may be especially efficacious with Hispanics (see section II). While this comprehensive marketing plan will work best if implemented in a five-year rollout, short-term success is determinable if, after one year, awareness of Red Sol panels reaches 15% of the Hispanic community of San Diego, and 50 new customers have been secured.

II. Situation Analysis

Strengths, weaknesses, opportunities, and threats of the marketing plan

Red Sol has specifically targeted Latinos in the San Diego area for this campaign because of the situational opportunities they present. In general, Latinos often make up large households of people in urban areas, suggesting that Red Sol will have positive results concentrating advertising within the confines of the city. Inadvertently, this also creates a helpful boundary for measuring the results of the campaign. According to Korzenny & Korzenny (2012), environmental conservation is a top priority for Hispanics, and Hispanics who prefer the Spanish language are more likely to self-report that they “always” make an effort to choose environmentally friendly products than any other consumer group. Red Sol hopes to take advantage of the opportunity to attract Latinos who value Spanish with its distinctly Spanish name, and collateral that incorporates code-switching.

McCabe & Corona (2011: pg. 52) take those findings a step further, inferring that Hispanics are most likely to participate in eco-friendly activities around the home, as well as “eco-friendly activities with a financial reward, such as obtaining cash from recycling aluminum or bottles or reducing their electricity bill.” These findings provide substantial grounding for the strengths of Red Sol’s savings-oriented pricing strategy. However, a subsequent study sheds light on a potential threat. Additionally, McCabe, Corona, & Weaver (2012) assert that Latinos are less likely than Non-Hispanic Whites (NHW’s) to make high-involvement, eco-friendly purchases that entail large financial commitments or leases—for example, a hybrid vehicle. This observation coincides with a subjective factor prominent in many Hispanic nations. Hispanics often view loans as possessing a negative stigma, believing that people should only borrow money as a desperate, last resort. Consequentially, those who lend money to others in return for profit brand themselves as unethical in the eyes of the Hispanic consumer (Korzenny & Korzenny, 2012).

This observation concerning loans traces back to a prominent ethos of Hispanic cultures: fatalism. The cornerstone of Red Sol’s business model is its dependence on forward-thinking consumers, both in terms financial return on investment, and the investment in keeping the environment in good shape for future generations. Hispanics who believe, wholeheartedly, in living in the moment, particularly those who have a Catholic background, are less likely to be convinced that solar panels are a worthy investment. To counter this threat, Red Sol’s target market includes rather progressive Hispanic citizens for whom this argument may not apply. This aspect is further discussed in a subsequent section.

Red Sol’s partnership with local utility companies is a potential boon for its campaign due to the immediate access to market share. However,

it simultaneously presents a threat. Many Hispanics pride themselves in relying on their families and communities, as opposed to government and institutions. For example, the utilization of group interdependence—to purchase a big-ticket item like a car—rather than taking out a loan from an institution is common in Hispanic communities. Korzenny & Korzenny (2012) elaborate on this point to imply that Hispanics are suspicious of institutions that replace group interdependence, such as Medicaid and Social Security, partially due to a painful history of government corruption in Latin nations. Recent US government “failures,” such as the housing crisis and subsequent economic turbulence of 2008, may have compounded this sense of mistrust. While Red Sol does not directly undermine community interdependence, a partnership with public-owned utility companies may prove to be a perceptual obstacle to gaining the trust of the more cynical Latino consumers.

Red Sol plans to partition itself from the image of bureaucratic duplicity with an internal strength. Red Sol will recruit respected figures, from within the Hispanic community, to champion its services. This is to be accomplished by offering discounts in exchange for honest testimonials and even persuading these users serve as brand ambassadors. This method relies on the cultural insight of polymorphic leadership among Latinos, meaning that leaders that Hispanics respect in one category may be trusted in disparate categories of life (Korzenny & Korzenny, 2012). For example, a trusted family doctor may be approached for advice on immigration policies, even if the issue is outside of her expertise.

III. Analysis of Competition

Red Sol’s potential competitors and their efforts to reach Hispanics

Red Sol’s marketing strategy addresses a prevalent lacuna in the industry; currently, other solar companies are doing very little to reach the Hispanic market. Despite the large concentration of Hispanics in the region of Southern California, and its proximity to the border of Mexico, the majority of solar advertising features imagery of Caucasian families. There is virtually no solar energy advertising that leverages Spanish, Spanglish, or Code-Switching.

That is not to say that Red Sol has no competition. Within the confines of the city of San Diego, the Better Business Bureau has record of roughly 30 companies under the category of Solar Energy Equipment, Systems Distribution, and Installation. Furthermore, if the search parameters are expanded to include other types of energy suppliers, the market becomes exponentially more saturated. While very few of the aforementioned solar companies appear to be actively and directly targeting Latinos, some of them are implementing foundation strategies of Hispanic Marketing

whether they know it or not.

With an A+ rating on the Better Business Bureau, over 1,750 customers, and 250 installations within the last year, Sullivan Solar Power is arguably the most successful solar company in Southern California. Despite its wide success, Sullivan has not embraced marketing to its full potential, and in particular does not appear to be addressing the Hispanic Market. Regardless, Sullivan incorporates several strategies that may be producing positive results among Latinos.

Primarily, Sullivan is unwittingly utilizing reference groups, a practice specifically addressed in Red Sol's marketing strategy. Bandura & Walter's (1963) *Social Learning Theory* explains the concept of reference groups, in which humans learn social behavior and expectations through the practice of observing others ("models"). Models that are similar to the observer (therefore reflecting homophily) are likely to be particularly effective, as are models held in high regard by the observer. In marketing, this theory is useful because people have a tendency to use reference groups as a factor in making purchasing decisions. For example, a Latino may see another Latino driving a BMW and envision a scenario in which they own a similar car.

Due to the high-involvement nature of solar panel purchasing, Sullivan places a lot of emphasis on customer testimonials. A great deal of their current campaign highlights photos and videos of people in front of their homes arguing the benefits of solar from Sullivan. The majority of this media features older Caucasian retirees or middle-aged Caucasian couples with children. This demographic choice potentially represents a missed opportunity for Sullivan—if they were to portray members of key Hispanic reference groups as Sullivan Solar users, they could be reaching Latinos more effectively. As Korzenny & Korzenny (2012: pg. 63) conclude from their multicultural marketing studies, "Hispanics are more likely to identify with other Hispanics and use them as their reference group under many circumstances." Therefore, producing testimonial videos featuring well-respected Latinos might be a good place to start.

That being said, Latinos are not limited to using other Latinos as their reference groups—often Hispanics will relate to or admire those outside of their own ethnic groups, building "aspirational" reference groups. By this logic, Sullivan's efforts may be reaching Hispanics who connect with upper- to middle-class retired Caucasians as a reference group. Realistically this hypothesis might not be too far off the mark—Korzenny & Korzenny (2012) find that economic success is an important objective for many Hispanic immigrants to the US. Therefore, financially stable retirees may function as a reference group from which some Hispanics learn consumer behaviors.

Virtually all solar energy companies in California rely on testimonials as a prominent marketing strategy. Therefore, this logic applies to many of Red Sol's competitors.

IV. Target Segment and Justification

Analyzing Red Sol's specific target group within the Hispanic market

Red Sol has chosen to focus primarily on a demographic segment of Hispanics: those between the ages of 30 and 50, English-language dominant, male or female head-of-household, and living in or around the metropolitan area of San Diego. This choice comes after much consideration of the behaviors and subjectivity factors of Hispanics, especially pertaining to their relation with “green” products and services.

McCabe, Corona, & Weaver (2012) draw a correlation between strong online presence and eco-friendly behavior, as well as noting a denser orientation of Millennial audiences engaged in online activities. From this, they conclude that younger Hispanics generally give the environment more consideration than older Hispanics who may be preoccupied with family issues or economic welfare. For Red Sol, this piece of information presents a point of contention—traditionally, people do not purchase a permanent home until they are older, and home ownership is more or less a prerequisite for home solar-related investments. This seems to indicate that younger Hispanics are not prime candidates for solar. However, the National Association of Realtors Generational Survey (2015) provides evidence that Millennials make up an increasingly dominant majority of Hispanic homebuyers. Unfortunately, for Red Sol, they are more likely to “flip” their home purchases, a practice in which one owns a home for a short period of only a few years before re-selling it. While the rise of young homeownership initially presents itself as a positive sign for Red Sol, the temporary nature of these purchases could reflect negatively on Hispanic Millennials' desire to make a long-term investment in solar.

Hispanics' overall tendency to favor home ownership over renting was a large draw for Red Sol in choosing to target Hispanics, and is a critical piece of the equation. More than Europeans, and marginally more than Caucasian Americans, US Hispanics aspire to own their own home. In a study by The National Association of Hispanic Real Estate Professionals (2010), 56% of US Hispanics saw home ownership as a symbol of success or achievement, as opposed to only 32% of other Americans. The NAHREP concludes that Hispanics now, more than ever, are acting on this aspiration: from 2000 to 2010, Hispanic home ownership grew by 51.7%, with an average annual increase of 3.9%. This is comparatively higher than the average annual increase of 0.4% for non-Hispanic owned households. A final insight from the NAHREP offers the most compelling reason for target-

ing middle-aged Hispanics: 67% of Hispanics viewed home ownership as a good retirement investment. Red Sol's marketing strategy utilizes these insights regarding home ownership to draw a parallel between home ownership investment and solar panel investment. Therefore, Red Sol targets middle-aged Hispanics who are beginning to think about retirement, but are still young enough, generally, to fall in the category of people who have a strong online presence.

Middle-aged individuals in Red Sol's target market will be both first- and second-generation US Hispanics who are typically English-dominant but have an emotional connection with the Spanish language. These individuals will be members of the New Hispanic Identity who have been acculturated (or, as in the case of second-generation US Hispanics, enculturated) to the United States, and find themselves in the semi-permanent state of biculturalism. The logic behind choosing this target is that these consumers must be relatively affluent and comfortable in American society, holding a stable occupation capable of affording investments on the level of solar energy. That being said, the target market is not limited to the wealthy elite. The very nature of Red Sol's zero-down business plan allows for targeting middle-class Latinos, as well.

Despite these somewhat narrow target specifications, the ingenuity of Red Sol's marketing it in its targeting of Hispanic households as a whole. Further, large households are a particular focus of the marketing plan because they use more energy and will have higher bills. Red Sol takes into consideration that they may be marketing to households that include members outside of the typical nuclear family, as well of individuals of varying levels of acculturation. Because of the collectivist nature of Hispanic culture, the consumer decision of high involvement purchases, such as solar panels, may generate from multiple members of the household. Red Sol will focus its advertising efforts primarily at the middle-aged members of the household previously described, with special focus on the matron of the household as the primary decision maker. However, Red Sol will take various potential other inhabitants into consideration, as outlined in the marketing implementation strategy (section VI).

V. Positioning Strategies

Red Sol's communication strategy based insights about Hispanics and the solar energy industry

In an environment in which the product being marketed is almost identical to other products, it is prudent to utilize a positioning strategy that highlights an emotional benefit for the consumer (Korzenny & Korzenny, 2012). Red Sol has no shortage of competition offering similar solutions, and accordingly Red Sol will implement a highly emotional, consumer-focused campaign that positions Red Sol as a service that will keep the consumer's

family comfortable and happy. Additionally, Red Sol's service offers the consumer financial benefits unmatched by its competitors. Therefore, Red Sol's campaign is also pragmatic, price-focused, and mindful of the long-term benefits beyond mere fiscal consideration. These positioning strategies will synthesize into a well-balanced, comprehensive campaign that utilizes many forms of media to their full potential.

As Korzenny & Korzenny (2012) and many other multicultural marketing experts concede, collectivism and family are typical cultural tropes that have been overused to market to US Hispanics for years, and their effectiveness has attenuated over time. Nonetheless, there is something to be said for using family imagery as opposed to individualist portrayals, as Hispanics unequivocally react more favorably towards such imagery (Nielsen, 2011). Red Sol will incorporate a new take on this dated approach, based on the Hispanic principle that one should take care of their family, and their family will take care of them in return. This campaign will feature emotional positioning of family safety, comfort, and happiness as a result of being able to afford to heat and light the home as desired. Red Sol will also communicate the idea that, when one invests in solar panels, they are investing in the future of their children who will one day inherit their home and not need to worry about energy costs. This concept is meaningful because Hispanics generally put more funding into their children's futures at the expense of saving for their own retirement (Hannon, 2012). Latinos are inclined to follow a practice of caring for their children, and expecting their children to care for them in return as they age.

Family-oriented strategies, such as the one proffered by Red Sol, differ from competitors' approaches of using environmental altruism as an emotional connection. Red Sol infers that individuals who are interested in ecology and pay attention to green product advertising are already aware that solar benefits the earth. Red Sol's strategy takes advantage of the already proliferous spreading of the "environmental savior" message by its competitors, and doubles down to reap the benefits of the public's enhanced knowledge.

Another important insight that Red Sol has taken into account in its marketing plan is Latinos' views on prosperity. For Latinos, the aforementioned notion of fatalism often translates into a belief that wealth is linked to corruption, and the most moral people are those who humbly endure poverty (Korzenny & Korzenny, 2012). Hispanics may believe that happily living in the moment is much more important than financial gain. Being that they are predominantly acculturated individuals, Red Sol's target market is likely to embrace a more moderate version of this view, while still maintaining the fundamental belief. Red Sol plans to capitalize on this perspective by emphasizing that the service is designed for members of the middle class, and is financially attainable for the average person. Unlike its competitors, Red Sol's testimonials will primarily feature distinctly middle-class users with families, in less spectacular, middle-class homes.

VI. Marketing Implementation Plan

Media strategies and specific advertising initiatives

Red Sol's primary media venue will be television. Red Sol infers that television will be especially effective in San Diego because it is the #12 city in quantity of Hispanic TV-watching homes, with some 267,000 households falling into this category. Additionally, McCabe, Corona, & Weaver (2012) concluded that the most effective ways to reach Hispanics, as indicated by Hispanics themselves, are television and radio. Nielsen's (2010) rating data grounds this observation, and goes on to state that multi-language households viewing mix is 50/50, split between Spanish-language and English-language TV. When viewed through the lens of multicultural marketing, Nielsen's study grants credence to a conclusion that, long after they have been more or less acculturated, Hispanics still hold on to Spanish and may continue to speak it in the home and watch television in Spanish. As for the specifics of media buying, Red Sol plans to utilize both Spanish- and English-language networks, such as Univision, ABC, and NBC, all of which scored high on Hispanic TV Network Viewership in the 2014 Ad Age Hispanic Fact Pack. Red Sol will air both daytime and primetime content in an attempt to include all members of the household who may be involved in a purchase decision. Predominantly, this includes not only the matron of the household, who may be home throughout the day, but also the English-dominant son or daughter who gets home from school in the early afternoon and the grandparents who may enjoy watching the news in the morning.

As for the nature of the advertising content, Red Sol's strategy is two-fold. First, it will create major advertorial television campaigns that are equal parts education and marketing, delivered in the form of infomercials. Second, special educational programs about solar energy will be "presented" with sponsorship by Red Sol. This second strategy can be likened to Ford's Tu Voz en Tu Vida website, which was created by AOL but contracted by Ford who then served as the site's "sponsor." According to McCabe, Corona, & Weaver (2012), Hispanics are actively seeking out information on solar energy, and they are more willing than non-Hispanics to pay attention, and respond positively, to educational advertising. This goes hand-in-hand with the distinctly Hispanic tendency to be less cynical towards advertising than non-Hispanic Americans. Hispanics often rely on advertising to teach them about products and services, and then form important attachments to the brand that first educated them on the uses of a product or service. This leads to brand loyalty and perpetuates a more open attitude towards advertising than most groups. While Red Sol's target market Hispanics are beyond the point of relying on advertising to teach them the uses of basic household products, Red Sol posits that they will still be able to hold these

Hispanics' attention with informative programming.

In addition to this advertising, Red Sol will incorporate several advanced public relations strategies into their campaign. As mentioned previously, one strategy involves the gifting of solar panels to prominent members in the Hispanic community in exchange for their public support of Red Sol. Another involves sponsoring educational summits within the community about the benefits of solar energy for the environment.

A third, and perhaps most important, strategy will be implementing an aggressive referral program. On the advice of leading clean energy news source Clean Technica (2012), Red Sol plans to tap into the tight-knit Hispanic community of San Diego as much as possible. In doing so, the hope is to instigate, organically, a grassroots version of what they are trying to attain through Hispanic spokespeople—Hispanics marketing to other Hispanics for them. Using a similar method to the wildly successful Hawaiian solar company Revolusun, Red Sol will offer large financial rewards in exchange for referrals. For example, if Person A purchases a solar energy plan and then refers Person B who also purchases one, both Persons A and B will be eligible to receive two months of waived solar energy bills, or a similar prize. Clean Technica's (2012) research indicates that this technique often has better results in Hispanic or Asian neighborhoods than an outsider coming in to market door-to-door. A neighbor or friend recommending a solution is met with much less skepticism than a straightforward solicitor is.

With television and PR techniques as the primary methods of communication, Red Sol will also implement several secondary marketing venues, including radio, magazines, and internet advertising. Radio has been selected for its power as a local marketing tool, and its success with Hispanics (Korzenny & Korzenny, 2012). Red Sol's radio advertising will invoke similar methods to its television programming—infomercials and sponsorships of educational programming. Red Sol will also take into careful consideration the polychronic nature of many Hispanics' schedules, by not only running radio ads during classic prime time slots (i.e. rush hour), but also a number of less popular and less expensive time slots. Red Sol's magazine advertising strategy is conceived along the same lines—Red Sol has chosen this additional medium because, historically, Hispanics are avid magazine readers. The company will run advertorial spreads that emulate real articles by presenting a wealth of information and testimonial quotations alongside information about Red Sol and its unique business model.

Lastly, and least important to the primary strategy, Red Sol will target younger audiences with humorous and eye-catching, English-language advertising on social media. These promotions will be aimed, outside of the target market, at Hispanic youth, simply because of the collective family decision model often used by Hispanics. Red Sol aims to hit the youngest family members (i.e. English-dominant Hispanics who were born in the

US) with a bright and memorable visual of Red Sol so that they will be equipped to contribute positively to family discussions.

VII. Evaluation

Measuring the success of Red Sol's campaign

Red Sol's campaign efforts in the San Diego region will serve as a test for its innovative business model. Red Sol chose middle-aged, bicultural Hispanics as a target market for the test because they believe this segment has the greatest potential in the industry of ecofriendly residential products and services. If deemed a success, Red Sol plans to implement the same business plan throughout the greater state of California, and on US Hispanics and non-Hispanics alike. Eventually, the goal is to spread throughout other states with laws that favor solar energy companies. Unfortunately, Red Sol is primarily limited to western states, as the majority of US states have laws that still make it virtually impossible to offer zero-down solar panel plans directly to consumers.

This one-year testing period is critical to Red Sol's decision as to whether or not to continue with their business model, and therefore they have gone to great lengths to ensure that their goals are realistically attainable and measurable. As mentioned in Section I, Red Sol will consider the campaign a success and continue it beyond the first year if they have raised awareness of Red Sol panels to 15% of the Hispanic community of San Diego, and have secured 50 new customers. The latter goal is far more easily measured than the former, as Red Sol will have no challenge keeping track of its number of clients; all clients will be accounted for in a database that also documents basic demographic information for all customers, including race and ethnicity.

The task of measuring awareness is one that will be completed by Red Sol's researchers, who will survey a randomly selected, large sample of Latinos within the San Diego region, both before the campaign and at the tail end. These surveys will be completed both in print and online, and in the language of the participant's choosing in order to reduce bias as much as possible. From this survey, Red Sol will select individuals to participate in focus groups that will measure awareness and glean insights from this target at the same time. While it may seem that Red Sol's awareness goal is unnecessarily low, it has been formulaically adjusted to account for the specific traits of the target market. While Red Sol is measuring awareness among the entire Hispanic population of San Diego, they are only targeting a specific segment of these individuals.

Red Sol anticipates success beyond the goals of its carefully calculated campaign. Red Sol believes this test will make a difference in society

by underlining the massive power of US Hispanics as an economic and cultural force, as well as proving their specific potential within the industry of green products and services.

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