BECOME AN EV EVANGELIST

Electric Vehicles, Your Higher Power and YOU
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DALE W. MILLER

- President of the Golden Gate Electric Vehicle Association
- Has been driving an electric car since 2011
- Lives in an all electric house with solar panels on the roof
KRISTIN TIECHE

- Certificate in Sustainability from City College of San Francisco
- Sustainable transportation advocate
- Environmental filmmaker
- Working with Golden Gate Electric Vehicle Association
Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me.

– Matthew: 25:40

- Increased emissions cause frequent extreme weather events, record-breaking heat, wildfires
- Pollution/Respiratory illness
- Gasoline is a carcinogen
- Drilling and fracking contaminates air and water
- Impacts lower income and vulnerable communities
- Threatens wildlife habitat
When you drive an internal combustion engine vehicle, you’re contributing to climate change.

- Current atmospheric CO2 levels = 405 ppm
- Current global temperature increase = 1.5°F (0.8°C)
- Direct correlation between rise in CO2 and rise in global temp
- Gasoline and diesel fueled vehicles account for 39% of the greenhouse gases emitted in California
Business As Usual = $4.5°C$ temperature increase

Best possible scenario = $1.5°C$ temperature increase

People are suffering now

Your children and grandchildren will suffer the most severe impacts

Opportunity to lead by example

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*Trust in God, but tie up your camel.* – Sufi parable

*God helps those who help themselves.* – Ben Franklin
Accepting the urgency, it seems clear to me also that climate change is a problem that can no longer be left to a future generation.

- Pope Francis
We are the first generation to feel the effect of climate change and the last generation who can do something about it.

- President Barack Obama
AHIMSA = NON-VIOLENCE

The one who loves all intensely begins perceiving in all living beings a part of himself. He becomes a lover of all...and is enriched by each soul.

–Yajur Veda

- Fossil fuel extraction, processing and burning are harmful to the planet and its inhabitants
- Drilling, oil spills and pipeline leaks have negative impacts on humans and nature
- Low-income communities and indigenous lands are most at risk
- Exhaust pipe emissions cause air pollution and health risks
- Political ramifications include oil wars, acts of terrorism and refugee crisis
ELECTRIC VEHICLES REPRESENT NON-VIOLENT TRANSPORTATION

- Kind to the Earth and all its present and future inhabitants
- Rebuilds our relationship with the Earth and its inhabitants
- Self-sufficient and uses a sustainable energy source
Protecting the environment is our obligation. Driving is one of the most carbon intensive activities. By having an electric vehicle, I’m reducing my greenhouse gas emissions and humans’ impact on the Earth for future generations.
The darkest night is ignorance.
– Buddha
ELECTRIC VEHICLES: A SOLUTION TO CLIMATE CHANGE

If EV usage rose from less than 1% of total passenger vehicles today to 16% by 2050, we could remove 10.8 gigatons of CO2 from the atmosphere.

From Drawdown edited by Paul Hawken
AB 1745 - The Clean Cars 2040 Act &
AB 1184 - The California Electric Vehicle Initiative

- Two bills proposed by CA Assemblymember Phil Ting
- AB 1745 requires all new vehicle registrations to be zero-emissions vehicles by 2040
- AB 1184 - a new rebate program to make zero-emission EVs more affordable
- 5 million EVs on the road by 2030
- Bills enable CA to reach its climate goals
God gave us burdens, but also shoulders. – Hebrew proverb

- Switch to an EV as soon as possible
- Make amends with Earth
- One of the most effective steps an individual can take to slow climate change and reduce air pollution
- Relieve us from guilt of harming the environment, contributing to oil wars, causing the refugee crisis, worsening climate change, destroying indigenous land and wildlife habitat
Being aware of how much burning fossil fuels contributes to global warming, endangering our planet and all life on it, I feel a moral responsibility to take meaningful action. One such action is to drive an electric car that I charge at home with Marin Clean Energy.
Three things cannot long be hidden: the sun, the moon, and the truth.

– Buddha
Truth #1:
EVS OFFER A BETTER, CLEANER, SAFER DRIVING EXPERIENCE

- Zero tailpipe emissions
- Quick acceleration
- Quiet engine
- Better handling & responsiveness
- High safety ratings
- Require less maintenance
Truth #2A: EVs ARE AFFORDABLE

- Buy new = $29K and up
- $7500 Federal tax credit
- $2500 -$4500 CA rebate
- $200-$599 CPUC Low Carbon Fuel Standard rebate
- Leasing more affordable
- Used = $5K and up
- EV electricity rate can lower electricity bill

Cost of EV after incentives:

$29,000
- $7,500
- $2,500
- $500

= $18,500
TRUTH #2B:
EVs ARE ECONOMICAL

• New gas vehicles get 27 MPG
• 25 MPG @ $3.25/gallon = 13 cents/mile
• EVs get ~4 miles per kWh of electricity.
  1 kWh of electricity = ~12 cents (PG&E EV rate) = 3 cents/mile
• $4,250 in fuel costs over 5 years
Truth #3:

EVS ARE LOW-MAINTENANCE

- No gasoline
- No oil changes
- No filters
- No tune-ups
- No smog-check
- Fewer moving (breakable) parts
Truth #4:
CHARGING AT HOME IS CONVENIENT & EFFICIENT

- Charge overnight at home - excess energy on grid at night
- Regular outlet sufficient for up to 40 miles per day
- 240-volt connector provides up to 50 miles per hour plugged in
- Charging an EV is like charging your phone
- Convenience of never going to the gas station
Truth #5: EVS MAKE GREAT COMMUTER CARS

- Many employers in CA offer workplace charging connections
- 240 volt charging stations are affordable
- Charging stations great for commutes greater than 40 miles
- Carpool lane benefits
Some EVs can travel up to 620 miles on a single charge

Commonly used EVs travel up to 335 miles on a single charge

Up to 170 miles in 30 minutes of charging

Fast (and often free) charging stations along freeways support road trips (plugshare.com & tesla.com/supercharger)

Thousands of free destination charging stations at hotels, state/national parks, shopping centers
Truth #7:

EVS ARE ZERO EMISSIONS VEHICLES

- No tailpipe emissions
- EVs do not need to rely on fossil fuel industry
- The electrical grid is getting greener and cleaner
- EVs get cleaner every day of use
- Homeowners and employers can install solar panels for charging
Truth #8:
EV BATTERIES ARE SAFE AND RECYCLABLE

- Guaranteed for 8+ years
- Do not go to landfill
- Repurposed for wind and solar electricity storage
- Many are made of recycled materials
- Lithium-ion batteries are made with valuable metals that have a life after being in a car
Truth #9:
SWITCHING TO AN EV NOW IS EFFICIENT

- Don’t wait for your old vehicle to die to replace it
- Switching to an EV is comparable to changing your lightbulbs
- Cars that pollute are cars of the past
Truth #10:
EVs ARE CARS OF TODAY

- Many options and price points
- Infrastructure is available and expanding
- EVs are equipped with smart technology
- Designed for 21st century
I decided to go electric when I learned that half of the phosphate pollution in the Charles River comes from vehicle exhaust. There was not only a planetary environmental benefit to EVs, but a local one as well. Let's do our part to change this by going electric!
We have not created the heavens and the earth and all that is between them carelessly. We have not created them but for truth.

– Quran 44:38-39

IMMEDIATE ACTIONS

- Cleanse your carbon karma!
- Trade in your ICE vehicle and purchase/lease an EV
- California Cash for Clunkers/California Vehicle Retirement Program - $1000 - $1500 incentive
- Install a charging stations at your place of worship
- Purchase a community EV for your congregation
MORE WAYS TO TAKE ACTION

- Request charging stations at your office, apartment building or condo complex
- Install solar PV panels on your roof
- Advocate for EV support from your local, state, federal government
- Demand more renewable energy to the grid
- Urge your local car-share to invest in EVs and charging stations
OVERCOMING OBSTACLES

Human beings, while capable of the worst, are also capable of rising above themselves, choosing again what is good, and making a new start.

– Pope Francis, Laudato Sí

• New EV Charge Network from PG&E
• Access to charging stations
• Access to electricity
• Energy use/efficient charging
• Cost/Financing options/Incentives
I see a time of Seven Generations when all the colors of mankind will gather under the Sacred Tree of Life and the whole Earth will become one circle again.
– Chief Crazy Horse, Lakota Tribe

- Become an EV evangelist
- Buy or lease an EV
- Pledge to take your ICE car off the road
- Download this presentation and share with your community
RESOURCES

Golden Gate Electric Vehicle Association:
GGEVA.org

California Interfaith Power and Light:
interfaithpower.org/resources/evguideforcongregations/
In the beginning, God said, let there be light: and there was light.
– Genesis 1:3

It's time for a new beginning.
QUESTIONS?

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