

# UC Berkeley

## Recent Work

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Silent Smoke

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## Marco Torrez Thesis: Silent Smoke Abstract

My thesis stories are about the ever changing climates that have dramatically shifted within the last year for communities across the California Bay Area and New Mexico. My first story heavily draws on the shifts caused by COVID-19 and overall its permanent effect it's had on the music community in the Bay Area. While my second story instead deals with the transition NM is taking from fossil fuels to renewable energy and how this shift will displace and uproot many New Mexican residents and their jobs.

### Story 1: Silence

COVID-19 affected communities across the world as surges allowed the virus to spread infecting and killing hundreds of thousands of lives. The music community was no different but their future was much bleaker than the rest. "At some point most musicians make money by having a thousand people in the same room at the same time," Kale Cummings the SF Musician Union President said. Cummings said that the Music industry would be the last industry to return to normal due to the circumstances of the virus and how it's spread through close contact.

Musicians witnessed within just a matter of days, months of gig work, teaching lessons, and performances vanish. This launched a scene of panic and fear throughout the community. Many of which turned to their creativity and improvised new work methods. Some of these methods being, remote digital teaching lessons, creating rentable makeshift recording studios, and learning about music editing production to freelance their skills to music groups across the Bay Area.

My story shows the transition musicians had to make at the start of COVID-19 and depicts the future for the music industry and its musicians.

### Story 2: Smoke

In January, the Biden administration placed a 60 day moratorium on fracking contracts and leases on public land. However, New Mexico makes 40% of it's annual budget from the royalties and revenue from selling mineral land leases. The money used from fracking is used to fund New Mexico's education program as well as public safety and infrastructure programs.

In 2019, New Mexico Governor Michelle Lujan Grisham signed into law the New Mexico Energy Transition Act which essentially sets in place a 30 year plan for transitioning New Mexico from a fossil fuel reliant state to instead a renewable energy powered state.

With these transitions, both immediate and long term, set into motion panic and fear throughout communities that completely rely on the oil industry to survive. Artesia, Carlsbad, and Hobbs, New Mexico are just a few examples that I went and visited of towns that are solely reliant on oil. Ultimately, removing and displacing oil workers would create a ripple effect throughout the state and affect the local businesses and residents of these fossil fuel towns.

However, even petroleum specialists, like the one I talked to claimed that the hydrocarbons that are released into the air from fossil fuel production are both harmful to people and the environment. Instead, an answer of having a society powered by a mix of both fossil fuels and renewable energy would be the most effective way to survive as it would maximize our energy output while limiting the amount of hydrocarbons into the atmosphere. Although, this is only a possible future if storage technology advances far enough to allow society to mass transform hydrocarbons into hydrogen.

But as of now, the answer is unknown. But what is known is that no matter what decision is made any transition needs to be done over time.

## **Video 1: Silence**

### Locations:

1. San Francisco - SF Musician Union/Kale Cummings Interview
2. Vallejo - Bruce and Gabs Interviews
3. Pleasanton - Kelly Fasman Interview
4. Walnut Creek - John Trumbata Interview
5. East & West Bay - Scope of musicians affected by COVID

### Sources:

1. Kale Cummings [SF Musician Union President] - [kale@afm6.org](mailto:kale@afm6.org) (415) 575-0777
2. Kelly Fasman [Local Drummer]- [kellyfasman@comcast.net](mailto:kellyfasman@comcast.net) 510-913-0792
3. John Trombetta [Local Trumpetist]- [trombetta@mac.com](mailto:trombetta@mac.com) 212-942-5525
4. Bruce Chrisp and Gabrielle Wunsch [Local Trombonist and Violinist] - [blchrisp@gmail.com](mailto:blchrisp@gmail.com) 415-726-3732

### Info Links:

1. [https://www.rand.org/blog/2020/07/the-pandemic-is-a-disaster-for-artists.html#:~:text=Unemployment%20is%20particularly%20high%20for,in%20retail%20\(18%20percent\).](https://www.rand.org/blog/2020/07/the-pandemic-is-a-disaster-for-artists.html#:~:text=Unemployment%20is%20particularly%20high%20for,in%20retail%20(18%20percent).)
2. <https://www.afm.org/covid-19/>
3. <https://www.local802afm.org/allegro/articles/lose-your-gig-file-for-unemployment-if-you-can/>
4. <https://fas.org/sgp/crs/misc/R46554.pdf>
  - a. Part-time workers experienced an unemployment rate almost twice that of their full-time counterparts in April (24.5% vs. 12.9%), but this gap has since effectively closed
  - b. Notably, the leisure and hospitality industry experienced an unemployment rate of 39.3% in April, before declining to 16.7% in December
  - c. Teenaged women experienced an unemployment rate of 36.6% in April, and teenage men, 28.6%
5. <https://www.chalkbeat.org/2020/10/1/21497795/teaching-in-person-and-virtual-students-at-once-is-an-instructional-nightmare-some-educators-say>
6. <https://www.edweek.org/leadership/virtual-teaching-skill-of-the-future-or-not-so-much/2020/04>

### Government Pages:

1. <https://www.bls.gov/oes/current/oes272042.htm>
2. <https://www.arts.gov/sites/default/files/COVID-Outlook-Week-of-1.4.2021-revised.pdf>
3. <https://www.bls.gov/cps/effects-of-the-coronavirus-covid-19-pandemic.htm>

## Musician Resource Pages:

1. <https://www.philharmonicsociety.org/COVID19/MusicianResources/>
2. <https://copyrightalliance.org/how-to-help-musicians-who-cannot-perform-live-due-to-covid/>

## News Articles/Videos

1. <https://abcnews.go.com/Business/musicians-artists-covid-19-pandemic-turning-point/story?id=75686491>
2. <https://theundefeated.com/features/what-happens-to-musicians-when-all-the-gigs-stop-coronavirus/>
3. <https://www.nbcnews.com/news/us-news/no-tours-or-live-shows-musicians-have-found-ways-bridge-n1240478>
4. <https://www.bbc.com/news/entertainment-arts-54966060>
5. <https://www.rollingstone.com/pro/lists/coronavirus-music-business-latest-974262/>
6. <https://www.washingtonpost.com/business/2020/05/08/april-2020-jobs-report/>

## **Video 2: NM Energy**

### Locations:

1. ABQ - UNM Professor & NM
2. Santa Fe - Governor Michelle Lujan Grisham
3. Macho Springs Wind Farm (South of Solar Farm) - ON PRIVATE LAND
4. Macho Springs Solar Farm (Near Hatch, NM) - ON PRIVATE LAND
5. XCEL Sagamore Wind Farm (Near Roswell/Clovis) - David Hudson Pres NM&TX XCEL
6. Hobbs

### Sources:

1. NM Senator Martin Heinrich (Energy Nerd)
2. NM Governor Michelle Lujan Grisham (Brought to life; Energy Transition Act of 2019)
3. Robert Balch [Director of Petroleum Research Institute] [robert.balch@nmt.edu](mailto:robert.balch@nmt.edu) (575) 835-5305
4. Barney Jaramillo [Xcel Sagamore Wind Farm Operations Manager] [Barney.A.Jaramillo@xcelenergy.com](mailto:Barney.A.Jaramillo@xcelenergy.com) 575.769.4284
5. Ronnie Stewart [Multigenerational Hobbs, NM resident and business owner]

Maps (Wind & Solar on STATE LANDS does NOT include private land):

1. [https://www.nmstatelands.org/wp-content/uploads/2019/06/1RENEWABLE\\_ENERGIES\\_Wind\\_Letter.pdf](https://www.nmstatelands.org/wp-content/uploads/2019/06/1RENEWABLE_ENERGIES_Wind_Letter.pdf)

2. [https://www.nmstatelands.org/wp-content/uploads/2019/06/1RENEWABLE\\_ENERGIES\\_solar\\_Letter.pdf](https://www.nmstatelands.org/wp-content/uploads/2019/06/1RENEWABLE_ENERGIES_solar_Letter.pdf)
3. <https://www.drillingmaps.com/New-Mexico.html>

#### Factsheets:

1. [https://www.southernpowercompany.com/content/dam/southernpower/pdfs/fact-sheets/MachoSprings\\_Solar\\_Facility\\_factsheet.pdf](https://www.southernpowercompany.com/content/dam/southernpower/pdfs/fact-sheets/MachoSprings_Solar_Facility_factsheet.pdf)
2. <https://www.capitalpower.com/operations/macho-springs-wind/>
3. <https://www.xcelenergy.com/staticfiles/xcel-responsive/Energy%20Portfolio/Renewable%20Energy/NM-Sagamore-Infographic.pdf>
4. <https://www.api.org/~media/Files/News/2020/09/API-NMOGA%20One-Pager.pdf>

#### News Articles/Videos:

1. [https://www.thecentersquare.com/new\\_mexico/new-mexico-oil-and-gas-association-president-ban-on-fracking-is-anti-science/article\\_966f4c3a-5f4a-11eb-b2ff-43b429d8cdfd.html](https://www.thecentersquare.com/new_mexico/new-mexico-oil-and-gas-association-president-ban-on-fracking-is-anti-science/article_966f4c3a-5f4a-11eb-b2ff-43b429d8cdfd.html)
2. <https://www.abqjournal.com/1538563/fracking-ban-reintroduced-in-new-mexico-legislature-for-third-year.html>
3. <https://spectrumlocalnews.com/tx/san-antonio/news/2020/12/17/largest-wind-farm-in-new-mexico-to-begin-generating-power>
4. <https://www.powermag.com/solar-farms-would-replace-new-mexico-coal-fired-plants/>
5. <https://www.kob.com/albuquerque-news/oil-and-gas-leaders-say-biden-moratorium-on-new-drilling-will-hurt-new-mexico/5989233/>
6. <https://www.kob.com/new-mexico-news/bidens-pause-on-oil-cause-for-big-concern-in-new-mexico/5987366/?cat=500>

#### NonProfits:

1. <https://www.nmsolar.org/>
2. <https://reia-nm.org/>
3. <https://www.api.org/news-policy-and-issues/news/2020/09/09/new-mexico-federal-leasing-ban>
4. <https://www.nmoga.org/>
5. <https://nmfirst.org/>

#### Govt:

1. <https://www.nmstatelands.org/>

Native American Tie-in (NM Ohkay Owingeh tribe able to enter renewable energy pjt w/ U.S. without further approval from the Bureau of Indian Affairs [BIA] through HEARTH ACT of 2012 [ <https://www.bia.gov/bia/ots/earth> ]):

1. <https://www.natlawreview.com/article/renewables-tribal-land-addressing-environmental-and-economic-equity-path-to-clean>

General Info Links:

1. <https://www.dws.state.nm.us/ETA>
2. [https://www.nmoga.org/what\\_is\\_fracking](https://www.nmoga.org/what_is_fracking)
3. <https://www.linkedin.com/company/pattern-energy/>
4. <https://geoinfo.nmt.edu/resources/coal/home.html>
5. <https://www.mrcog-nm.gov/DocumentCenter/View/2233/Central-New-Mexico-Climate-Change-Scenario-Planning-Project-Final-Report-PDF?bidId=>
6. <https://aces.nmsu.edu/pubs/research/economics/TR45/welcome.html>

Slug: Silence

TRT: 9.55

Reporter: Marco Torrez

<p><u>Intro Sequence</u> B Roll: Title screen: Slow motion NYC street middle of intersection people walking</p> <p>GFX: "Silence"</p> <p>Animation: Title: "Silence" gets wiped away as the figure walks through it.</p>	<p>Music: Violin Plays until end of intro sequence at theater scene</p> <p>Sound effects: People walking</p>
<p>B Roll: Raiiny city</p>	<p>Sound Effect: Rain</p>
<p>B Roll: Trumpet player</p>	<p>Nat Sound: Trumpet Playing</p>
<p>A Roll: Headshot of John</p>	<p>Music: Cont.</p>
<p>B Roll: Bruce playing his trombone</p>	<p>Nat Sound: Trombone playing</p>
<p>A Roll: Headshot of Bruce</p>	<p>Music: Cont.</p>
<p>B Roll: Camera looking up in busy city</p>	<p>Nat: Lots of random talking</p>
<p>B Roll: Drum Symbols</p>	<p>Nat Sound: Drum Symbols</p>
<p>A Roll: Headshot of Kelly Fasman</p>	<p>Music: Cont.</p>
<p>B Roll: Empty barbershop</p>	<p>Sound Effect: Clipping of Scissors</p>
<p>B Roll: Empty airport</p>	<p>Sound Effect: Airplane taking off</p>
<p>B Roll: Empty stadium seats</p>	<p>Sound Effect: Announcer VO: "It is out of here."</p>



B Roll: Aerial shots of the empty stadium	Sound Effect: Announcer VO cont.
B Roll: CU of Violin	Music: Cont.
A Roll: Gabs Headshot	Music: Cont.
B Roll: Empty Theater	Music: Cont.
B Roll: Floating Covid virus in subway	Archival VO (Lester Holt): "The Coronavirus Pandemic"
B Roll: Animation of people turning orange (symbolize the spread of COVID)	Random Reporter VO: "Coronavirus, Coronavirus, COVID-19"
B Roll: Living Room w/ T.V.  T.V. white noises to archival clip  Archival: David Muir	Sound Effect: White Noises static  Anchor VO:  "We begin tonight with the coronavirus with alarming new numbers, cases on the rise in every state."
B Roll: Drone shot bird eye of neighborhood Drone shot straight through neighborhood Ground shot pan in front of home	<b>VO:</b>  <b>This has been the reality that communities all across the globe have been faced with throughout the entire year since COVID-19 started its initial surge in early March.</b>  <b>The music community is one of these groups but it's also one that's faced with a bleaker future than the rest.</b>
B Roll: Silhouette of guitarist  Animated GFX: Music notes coming off music sheet page	<b>VO:</b>  <b>This is Kale Cummings, the San Francisco Musician Union President. He says that musicians are in a much worse position than people actually realize.</b>
A Roll: Kale Cummings SF Musicians Union President	A Roll: Cummings  "Musicians are going to be among the last

<p>B Roll:  Concert  Piano recital  Large gathering in ballroom watching musical performance  CU on audience clapping hands  Empty seats in auditorium</p>	<p>groups to get back to work.</p> <p>At some point most musicians make money by having a thousand people in the same room at the same time</p> <p>It's most reasonable to assume that that reality is going to probably be the last one before we're completely back to normal. So, even as we see these little moments of opening up it's going to be a while before those are actually significant enough to make a difference in musician's lives."</p>
<p>B Roll:  Waves on a beach  Return to life button  Orchestra concert  Time lapse overhead view of subject working at their desk  CU on piano player  Man in grief for losing his job on steps outside  Man holds up sign that reads "I need a job"</p> <p>GFX: Image logos of:  Uber  Lyft  DoorDash</p> <p>B Roll:  CU of Fasman hands  Fasman playing drums  Fasman holding sheet music  CU of Fasman headshot while playing drums</p>	<p><b>VO:</b></p> <p><b>However, as the coronavirus continues to have waves of surges that push back the "resume to ordinary life" date, most people in the music community can't survive for an indefinite period of time without picking up other kinds of work to supplement their wages.</b></p> <p><b>While everyone tried to get music related side jobs there are many musicians who weren't as lucky and had to find other means for income outside of the music industry. These people turned to popular service jobs like Uber, Lyft, and Grub Hub.</b></p> <p><b>Kelly Fasman is a local musician, teacher and gig performer in the Bay Area who considers herself lucky that she was able to transition to virtual music lessons with all of her 40 students. However, she recounts the panic and fear she experienced when she said at the beginning she lost everything.</b></p>
<p>A Roll: OC Fasman  Interview</p>	<p>A Roll: Fasman</p> <p>"I was so busy, I was teaching in the schools, teaching private lessons and going to play gigs and then everything went away in a week. Everything got canceled within 2 or 3 days. Months and months of work. And it was just my whole income."</p>

<p>B Roll: Teaching her student Zack via pc</p>	<p><b>VO:</b></p> <p><b>But Fasman didn't give up and instead did what she thought would never work, teach digitally.</b></p>
<p>A Roll: OC Fasman Interview</p> <p>B Roll: Zack, Fasman's student playing a musical section during his lesson via skype</p>	<p>A Roll: Fasman</p> <p>"Overnight I had to quickly figure out what to do and I couldn't get back any of the gigs.</p> <p>I'm so grateful I learned how to teach online. I haven't missed 1 day of teaching before covid till now. Because of the tech and COVID I didn't have time to chicken out. I'm not a tech person, I'm a tech NO.</p> <p>All 40 of my students within a day had skype. They all were able to take a skype lesson and it works and it's fun."</p>
<p>B Roll: Bongo class Piano instruction Guitar tutoring</p> <p>GFX: Jobless graphic Unemployment graphic California state graphic</p>	<p><b>VO:</b></p> <p><b>Like Fasman, many other musicians also turned to teaching. However, this transition mostly worked for musicians who already had students before the pandemic.</b></p> <p><b>Both Fasman and Cummings say they have friends and colleagues who weren't lucky and instead had to turn to other ways to survive. Unemployment being the first stop for most people in the industry but with the CA unemployment bottleneck that backlogged millions of unemployment fund requests for months on end decisions had to be made.</b></p>
<p>A Roll: OC Cummings Interview</p>	<p>A Roll: Cummings:</p> <p>"We all want to play. We all would much rather be working and playing. We don't want handouts, we want to work and earn our money ourselves. But. Sometimes in a disaster you need help."</p>
<p>B Roll: Mac computer Green screen and ring light Speakers and front of Mac Computer</p>	<p><b>VO:</b></p> <p><b>Like Fasman, other musicians turned to their creativity and improvised new work</b></p>

<p>Teaching lesson via zoom with a student and teacher          Makeshift recording studio          Keyboard          Chrisp editing music composition          CU Chrisp headshot</p> <p>CU of Chrisp and Wunsch hands          Chrisp playing the Trombone          Wunsch holding her violin by the window          Wunsch holding cup of tea          Wunsch playing her violin</p> <p>Man walks and tumbles down sand hill</p> <p>Empty piano room</p> <p>Hallway with statue on shelving unit</p> <p>GFX:          They          Got          COVID</p> <p>Infection number counter tracking to 100k          Hospital patient hand against window with mask and gown looking outside while raining</p> <p>Doctor analyzing vials of biology samples with a microscope.</p>	<p><b>methods that could help them generate income.</b></p> <p><b>For example some of these methods included remote digital teaching lessons, creating rentable makeshift recording studios, and learning about music editing production to freelance their skills to music groups across the Bay Area.</b></p> <p><b>Bruce Chrisp a symphonic trombonist and his wife Gabrielle Wunsch a symphonic violinist had already reached the top 1% of musicians who play FT just in the symphony without the need to do outside gigs to supplement their income.</b></p> <p><b>But as the saying goes, the bigger they are the harder fall and hard is understatement. Their transition at the beginning was different from most others because they got covid.</b></p> <p><b>And on top of that they were some of the first people in the Bay Area, let alone the U.S. to get infected by the coronavirus. This was still at a time when people including doctors didn't even know what exactly the virus was.</b></p>
<p>A Roll OC Gabrielle Wunsch:          Interview</p>	<p>A Roll: Gabrielle Wunsch</p> <p>“The flu feels like you were just run over by a truck and I did not feel like that except for the chest tightness, the shortness of breath, the pain breathing, the lightheadedness, which seems like a lot of butts, oh and the fever. I actually felt pretty ok. Not like how you feel when you have the flu.”</p>
<p>A Roll OC Bruce Chrisp:</p>	<p>A Roll: Bruce Chrisp</p>

<p>Interview</p>	<p>“I think they were so confident that no one could have it yet or maybe they were so optimistic that no one could have it yet. So they weren’t treating it like that but you could tell the virologist was. He would not come close to us. He was basically backed into the corner, right by the door, a foot out the door. I’m not getting any closer. He said, ‘ I hope you have the flu but you don’t have the flu.’”</p>
<p>B Roll: Hospital hallway</p> <p>GFX: Sick man drawing Sick woman drawing</p> <p>Animation: They both move into the scene at the same time.</p> <p>GFX: Sick man drawing with covid virus molecules</p> <p>Animation: It grows from tiny to fit in center of screen</p> <p>B Roll: Wunsch looking out window while holding her violin Chrisp editing at his production station Over the shoulder of Chrisp while he edits music.</p>	<p><b>VO:</b> <b>But both Wunsch and Chrisp survived however they have lingering health conditions because of the virus that haven’t gone away for months.</b></p> <p><b>They didn’t give up. Instead, they became a top percent survivor in the music industry because of the innovation and action that they took on the idea that Chrisp had. That idea was to invest in music post production equipment and creation of an in-home rentable recording studio.</b></p>
<p>A Roll: OC Chrisp Interview</p> <p>B Roll: Side shot of Chrisp editing CU on mouse MS of keyboard Side shot of keyboard</p>	<p>A Roll: Chrisp</p> <p>“Fortunately I started getting into audio and video work and as soon as I got sick I started really getting intense about it. Now I’m being hired to do this work and I’m basically too busy.”</p>
<p>B Roll: Orchestra performance Audio waveform Young woman recording audio in a studio</p>	<p><b>VO:</b> <b>Chrisp says orchestras and other music groups from across the Bay Area are reaching out to him to edit together their</b></p>

<p>Song performance waveform</p>	<p><b>musicians recorded content into a longform musical piece. He says you can't even tell that these people weren't in the same room to make these pieces come alive.</b></p> <p>Music:</p> <p>"This land is my land...."</p>
<p><b>B ROLL:</b>  Upset man in front of switcher in studio  Mad drummer who throws his sticks at drums and walks away</p> <p>Upset man near the sea who throws a pebble out to the ocean with his guitar next to him</p> <p>Young man with a ribbon around his guitar neck</p> <p>Older man playing a guitar</p> <p>Young man laying down near beach playing his guitar while lying on his back</p>	<p><b>VO:</b></p> <p><b>The transition for musicians in the music community has been very difficult where many of them have decided enough is enough and transitioned out altogether.</b></p> <p><b>I spoke with a few different musicians who had played for decades but said "living as a musician was already tough but this pandemic made it impossible."</b></p> <p><b>They, like many others, decided to leave the music industry and instead said, they will only play their instrument again as a hobby.</b></p>
<p>A Roll: OC Cummings Interview</p>	<p>A Roll: Cummings</p> <p>"I like to think that we're going to get through this. And I know we will get through this. I like to think everyone will get through. Reality is that probably is not true. That is a sad reality. It will probably force quite a few people out of the music business."</p>
<p>A Roll: OC Fasman Interview</p>	<p>A Roll: Fasman</p> <p>"What I think might be a great help would be for people to voice their concerns and ask for live music to return to any venue that's safe. AND if it's safe for people to dine there then it should be safe for a band to play there. If people are a part and they are not gather or coming too close then it should be fine. People miss it, people miss the music."</p>
<p>A Roll: OC Cummings Interview</p>	<p>A Roll: Cummings</p>

	<p>“People are realizing now maybe now more now than ever if they can’t go to a restaurant and hear the music playing or they can’t go to see a show or symphony program or opera I think they are realizing how much they miss that and maybe how much they might have taken it for granted a little bit as something that was a part of their lives before COVID.”</p>
<p>B Roll:</p> <p>Hikers grasping each other’s hands  Couple dine in restaurant while watching live music  Live performance being shown on an ipad in a coffee shop  CU COVID vaccine  Vaccine being given to a young woman</p> <p>GFX:  Cost increase graph</p> <p>B Roll:  Local community music performance  Young man playing guitar in bar</p> <p>Drone shot of empty highway intersection  Drone shot birds eye of an empty city  Drone shot birds eye of a different empty city  Subway motion shot forward</p> <p>GFX:  Silence</p> <p>Animation:  Dip to Black</p>	<p><b>VO:</b></p> <p><b>Like how Fasman and Cummings say musicians need support from people outside their community to survive. Support by asking for music at local venues, going to online performances, and ultimately getting vaccinated so things can return to normal.</b></p> <p><b>But this is also something that people will have to realize the cost of not providing that support. That cost being the loss of music in local and large venues, on the street and in the community and instead becoming familiar with silence.</b></p>

Slug: NM Energy

TRT: 11.06

Reporter: Marco Torrez

<p>B Roll: Intro - fade from black to a couple different quick shots of NM Oil fields near Artesia.</p> <p>GFX: Title: Smoke</p> <p>Animation: Title: Smoke</p>	<p>Nat Sound: Wind in desert</p> <p>Sound effects: Metal squeak</p>
<p>A Roll OC: Marco Torrez Marco Standup in front of Artesia</p>	<p>Correspondent Marco Torrez:</p> <p>“I’m Marco Torrez and I’m here in Artesia, New Mexico reporting on NM’s transition from fossil fuels to renewable energy.</p> <p>Business owners and petroleum workers that all rely on fossil fuels aka fracking now have to think of a similar question, ‘What comes next if NM stops fossil fuel production?’</p>
<p>B Roll: Background of oil rigs [blur out] to GFX coming on screen.</p> <p>GFX: Pie chart/other image</p> <p>B Roll: Drone shot of Marie Hughes School and LBJ schools from the Albuquerque Public School district in New Mexico.</p>	<p><b>VO:</b></p> <p><b>The oil industry in New Mexico makes up about 40% of the state’s annual budget.</b></p> <p><b>The state makes a profit from the royalties off of federal fracking contracts and mineral leases to oil companies.</b></p> <p><b>The money the state makes from fracking is then used to fund the state’s education programs and other programs like infrastructure and public safety.</b></p>
<p>Still Image: Map of New Mexico and Texas</p>	<p><b>NM is a hot spot for oil drilling because of the Permian Basin. The basin is a dried up sea that stretches across western Texas and Eastern NM and it’s considered one of the richest oil fields in the country.</b></p>



<p>Still Image: CU of map of SE NM</p> <p>GFX: Pins/Small blocks</p> <p>Animation: Pins/Blocks appear on oil towns I visited.</p>	<p><b>For this story, I went to small towns located all across and nearby the Basin in Eastern and Southern N.M. to see for myself the communities that are at risk of disappearing due to immediate and indefinite bans on fracking and a long term transition to renewable energy.</b></p>
<p>B Roll: Land shot of Artesia Oil refinery</p> <p>GFX: Hand Stop icon</p> <p>B Roll: Drone shot of Hobbs water tank and city</p>	<p><b>The immediate issue deals with the Biden administration placing a 60 day moratorium in late January on all fracking contracts on public lands.</b></p> <p><b>This freeze effectively halted oil production in the N.M. but while doing so ignited a fear within the fracking towns and communities that survive due to the work in the industry.</b></p>
<p>B Roll: Cut aways to Balch:</p> <p>Balch w/ mask on Two Person Interview w/ Balch and myself Balch Taking mask off</p>	<p>VO:</p> <p><b>I talked with Robert Balch, the director of the petroleum recovery research center about oil drilling in New Mexico and the current pause on drilling.</b></p>
<p>A Roll OC Marco: Interview setup Marco positioned right of frame</p>	<p>Marco:</p> <p>What do you think about this? And do you think this will be lasting more than the 60 days?</p>
<p>A Roll OC: Robert Balch: Interview</p> <p>B Roll OC: Marco Head Nods</p> <p>A Roll OC: Balch</p>	<p>Balch: "If it were to become permanent it would become a very strong impact on NM."</p> <p>"By far in NM the most value comes from these oil and gas leases. last year there was about a half a million kick back to the state, I'm sorry, Half a BILLION dollar kick back to the state, now if the moratorium lasts for one year you will lose at least half a billion dollars of income because there won't be any new sales."</p>

<p>B Roll: Drone Clips of Artesia Oil Refinery:</p> <p>Birds eye shot Side pan shot</p>	<p>VO:</p> <p><b>The ban itself was made due to the deterioration of the environment and environmental concerns made across the country.</b></p> <p><b>Some of the most populated and lowest air quality locations across the country all have one thing in common.. Fracking.</b></p>
<p>B Roll: GoPro Tire on highway driving</p> <p>A Roll OC Marco: GoPro shot of Marco driving</p> <p>B Roll: Hobbs city sign at night Drone video of HOBBS water tower at sunset</p>	<p>VO:</p> <p><b>This is no different for the first place I visited, Hobbs, New Mexico. It's a small but growing town located right on the border of Texas with oil production as its staple bread and butter.</b></p>
<p>B Roll: Ronnie Stewart cutaway WS Ma Brown's business CU Enter sign CU Ma Brown's sign MS Restaurant and sign</p> <p>Interview: Ronnie Stewart [Ma's Burgers Owner]</p>	<p>VO:</p> <p><b>In an interview with Ronnie Stewart, a multigenerational hobbs resident, and business owner says everyone needs oil and gas and hopes it doesn't go away.</b></p> <p>A Roll OC Stewart:</p> <p>"Nothing takes the place of Oil and gas. Oil and gas has been here forever and is a part of America and certainly there will be great economic displacement if oil and gas were to go away. It's necessary for everyone in this community. We all feed off of oil and gas and that's in South NM and West Texas."</p>
<p>B Roll: Drone shot pan and move down on still oil well</p>	<p>VO:</p> <p><b>The moratorium and possibility that NM will follow the CA fracking ban are both immediate fears for the oil community but they aren't the only things stirring up worry.</b></p>

<p>B Roll: Drone Solar Panels WS CU 8% Blur GFX Data</p>	<p>VO:</p> <p><b>In 2019, NM Gov. Michelle Lujan Grisham signed the NM Energy Transition bill into law.</b></p> <p><b>Essentially, the Energy Transition Act aims to have NM investor-owned utilities and rural electric cooperatives running at 80% renewable energy by 2040.</b></p> <p><b>It also aims to achieve a zero-carbon footprint resource standard by 2050.</b></p>
<p>A Roll Balch: Interview</p>	<p>A Roll OC Balch:</p> <p>“It’s interesting to me that it’s called the Energy transition act and I think that’s a really good way to call it because you really do have to transition. It’s not a light switch that you turn off and on. It’s a dimmer switch where you’re trying to get to a certain place at a certain time and the real challenge is finding the right path to get there.”</p>
<p>B Roll: PC Heinrich Webinar Shot 0</p> <p>B Roll: Screen grab of NM Solar Energy Association Facebook page</p>	<p>Vo:</p> <p><b>NM senator Martin Heinrich spoke on a webinar in late March hosted by a state nonprofit, the NM Solar Energy Association.</b></p> <p><b>I tuned in for the webinar to hear the senator speak about the effects the transition will have on NM oil based communities.</b></p>
<p>A Roll OC Senator Martin Heinrich: PC Camera Shot 1 Full Screen Interview</p> <p>B Roll: Marco head nods</p> <p>A Roll: PC Heinrich Webinar Shot 1</p>	<p>A Roll OC Sen Heinrich:</p> <p>“I think it’s gonna be a lot of blue collar energy workers like my dad who are going to be most impacted by this energy transition. But they can also be the tradesmen and tradeswomen who will build up our new clean energy economy.</p> <p>So many of these new jobs will be in our</p>

	state's thriving solar energy. We have the potential to create thousands more.
B Roll: Silhouette of oil field worker Shots of oil rigs	VO:  <b>However, after speaking with Balch, Stewart and a local oil worker from Hobbs, they said the state will need to provide replacement jobs in the production field of the renewable energy industry so it could provide long term work as well as close to or above a six figure income which Balch says the majority of oil workers in NM make on average.</b>
B Roll: Sen Heinrich headshot	VO:  <b>Senator Heinrich also gave a nod toward another issue.</b>
A Roll: PC Heinrich Webinar Shot 2	A Roll OC Sen Heinrich:  "There will be so much work to do as we confront the climate crises."
B Roll: Oil refinery  A Roll: Blurred image of Marco walking with an oil worker [Confidential] in Hobbs, NM.	VO:  <b>This climate crisis is something that even oil workers have begun to recognize as they notice the impacts their work has on the environment.</b>  <b>This is an oil worker from Hobbs, NM. For his protection and the high risk of losing his job we blurred his image and distorted his voice.</b>
B Roll: Car Driving, heading to a wind farm, dirt roads, driving, pulling up go pro.	VO:  <b>Hearing so much about the renewable energy plants becoming the future of NM I went out to the state's newest and largest renewable energy wind farm to see for myself these goliath energy producers at work.</b>
A Roll:	A Roll OC Marco:

<p>Marco Tag in front of ExCel Headquarters in Sagamore Wind Farm</p> <p>Broll: Cut halfway from tag to Broll  Show wind farm WS  Land Shots of Wind Farm [Ben]  Go Pro shot of wind farm</p>	<p>“I’m located at the Sagamore wind farm headquarters in roosevelt county NM. This wind farm has 240 wind turbines that can produce 522 MW of electricity. This amount of electricity can power about 200,000 homes throughout the southeastern area of the state.”</p>
<p>B Roll:  Cutaways of the operation manager  CU of hand in pocket  CU of face  ECU of XCel logo on shirt</p>	<p>VO:</p> <p><b>I met with the wind farm’s plant operation manager Barney Jaramillo who says the plant’s longevity and resistance to extreme temperatures is nothing to worry about.</b></p>
<p>A Roll OC Marco:  Interview Question</p>	<p>A Roll:Marco</p> <p>“In the Sagamore windfarm what is the longevity of these wind turbines in case of a NM freeze that’s similar to a TX freeze like we saw earlier this year?”</p>
<p>A Roll OC Barney Jaramillo:  Interview</p>	<p>A Roll: Barney Jaramillo</p> <p>“The initial build and the forecast for these is a 20 year life cycle.</p> <p>Winterizing for these is not something much that needs to be done. They are fairly robust. The winds have to get to a negative 20 celsius range before these things will cut out of temperature and they will all operate well to above 100 degree fahrenheit before they cut out. We have quite a bit of range that these things can generate.”</p>
<p>B Roll:  Drone shot of wind turbine  Go pro shot of wind turbine  Drone shot of solar panels @ Macho Spring  Ground shot of wind turbine  Ground shot of Artesia Oil Refinery  Rising Crane shot of oil well  Ground shot of wind turbine @ Macho Spring</p>	<p>VO:</p> <p><b>Balch and Jaramillo both say renewable energy is a great resource for power but it isn’t perfect and the science can’t yet support a 100% renewable energy dependent system.</b></p> <p><b>Solar panels are limited to about 8 hours of exposure to the sun a day, while some days clouds block the sun and other days</b></p>

	<p><b>there isn't even wind to push the turbine blades in wind farms.</b></p> <p><b>They go onto explain that fossil fuels need to at least stay as a baseline power source in case these situations occur to provide essential energy to keep basic electricity needs running.</b></p> <p><b>Jaramillo says that all renewable energy plants are required to have reserves of fossil fuel in the emergency that renewable energy production is cut.</b></p>
<p>A Roll OC Jaramillo: Conversation interview setup between Jaramillo and Marco in Jaramillo's truck at the Sagamore wind farm</p>	<p>A Roll Jaramillo: Currently we don't have a plan to get to a totally renewable portfolio by 2050 the technology isn't there. The electricity that you use everyday is generated on demand there's no storage capacity for it. You use what we're generating and we generate what's being used and that has to happen on an hourly basis, minute, second by second, that has to happen."</p>
<p>B Roll: Drone shot tracking Jaramillo truck in wind farm Drone shot side pan of row of wind turbines at the wind farm</p>	<p><b>VO:</b></p> <p><b>Balch confirms what Jaramillo says by explaining that neither plan for 100% renewable energy or fossil fuels will work. What's needed is a mix of the two until hydrocarbon storage technology advances allowing the mass conversion of hydrocarbons into hydrogen, a non toxic element, for both people and the environment.</b></p>
<p>A Roll OC Jaramillo: Interview</p>	<p>A Roll Jaramillo: "So the transition from fossil fuels to renewables is the path of the entire nation. The global economy is going to be faced with the same thing. What I always caution people is just be aware renewables aren't always present. Solar has its drawbacks. The sun only shines so many hours a day. The wind turbines what you see over my shoulder, it's going to have to be a really common site for everybody. If you take the country as a whole</p>

	<p>the wind is blowing somewhere all the time. But it's going to have to get to that point where people are comfortable with wind turbines dotting the landscape in every direction with wind. Solar takes a larger footprint to generate the same amount of electricity so there's going to definitely be some trade offs going from fossil fuels going to a completely renewable portfolio."</p>
<p>A Roll: Marco Tag out Drone shot in Sagamore wind farm.</p>	<p>"With the uncertainty in NM renewable energy, the longevity in the oil industry, and NM state budget. Residents of nm are left to wonder.. Will the state be filled with oil rigs all across the land or instead will there be sky scraping wind farms like the one behind me. Or even a sea of solar panels throughout the state. This answer no one knows. But what is known is that whatever transition will occur will take time. And this time is needed to help the people transition from their positions in the oil industry to their new ones in renewable energy."</p>