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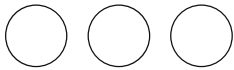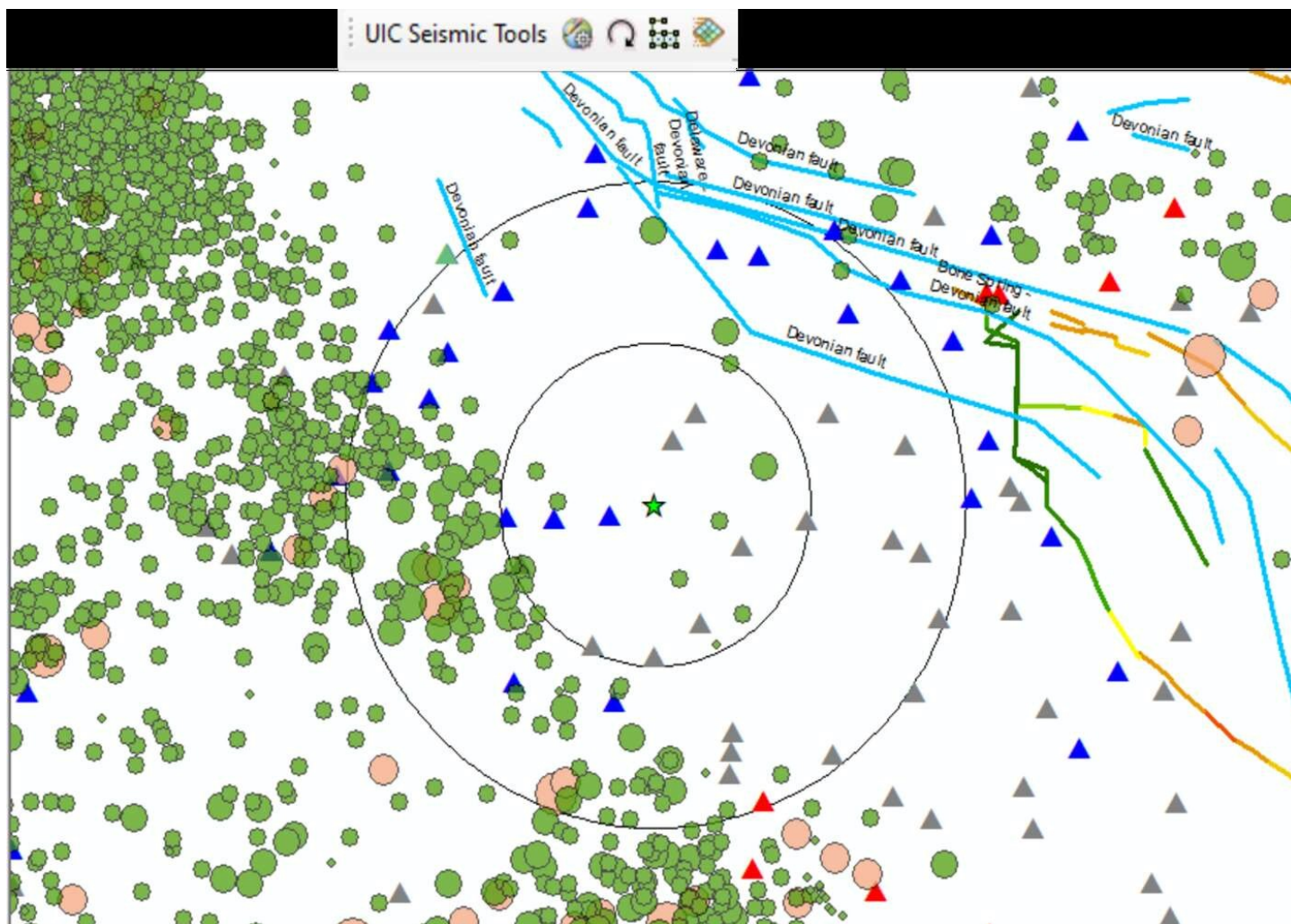**3.** Pickleball Giant sets up shop in San Antonio's Northside

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BUSINESS

Railroad Commission turns to AI to boost seismic reviews

Mella McEwen, MRT.com/Midland Reporter-Telegram

June 10, 2022

As the above illustration shows, Python scripts automatically collect GIS mapping of historic seismic events within a permit application's area of interest, data which is used by the machine learning algorithm developed by the Railroad Commission's Underground Injection Control department in seismicity reviews..
Courtesy Railroad Commission

As seismic activity continues to shake up West Texans, the Railroad Commission is turning to increasingly powerful technology to address the issue.

The agency is turning to artificial intelligence to improve the process of conducting seismicity reviews, which are conducted by the Underground Injection Control Department for injection or disposal well permits in areas susceptible to seismicity and in certain geologic zones.

"This is a first for the Railroad Commission," Sean Avitt, manager of the UIC, told the Reporter-Telegram by email.

His department has programmed a machine-learning algorithm to help with the large amount of data to be processed and digested. Tasks performed by the algorithm – along with some other changes – has allowed the UIC to wipe out a backlog of seismic reviews to zero.

Avitt said data quality has increased recently, which he attributed partly to the TexNet Seismic Monitoring Program.

"The TexNet Seismic Monitoring Program has increased seismometer density in Texas, which increases earthquake location accuracy," he wrote. "UIC's permitting seismic monitoring incentive has helped contribute seismometers to TexNet."

The University of Texas at Austin's Bureau of Economic Geology, which oversees the TexNet program, has published several reports – with more on the way – which have yielded a better understanding of seismicity in Texas, including better fault location data, he added. Oil and gas operators also submit fault locations in their UIC permit applications, faults that may not have previously been known, he wrote.

Like the agency's technical analysts who review the applications, the algorithm weighs many factors related to the number, severity and proximity of earthquakes and uses a decision tree to assign a grade to the review. The higher the grade, the more the permit would be allowed to inject. If the algorithm issues a low grade, the technical analyst will consult with the agency's seismologist on whether the application should be denied or allowed a minimal amount of disposal – 10,000 barrels a day. The algorithm has a high accuracy rate but it's the technical analyst who reviews the data and ultimately makes the final decision.

While artificial intelligence in reviewing seismicity reviews is a first for the agency, Avitt wrote that other applications are being evaluated to see if they may be good candidates for AI.

"Analyzing ways to incorporate automation of computing tasks is part of the drive to perform RRC's duties more efficiently," he wrote.

BUSINESS

CPS Energy says ongoing heat wave to blame for San Antonio's high June bills

Gabriel Romero

Updated: July 7, 2022 11:32 a.m.
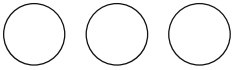
Detail of electricity bill with light bulb, energy theme.
Oscar MartÃn/Getty Images

Many San Antonio residents are opening their June CPS Energy bills this month and finding a higher than normal payment due. Now CPS Energy is pointing to the recent heat wave as an explanation for the spike.

"The primary drivers for higher bills are usage driven by extreme hot weather and fuel costs," said CPS Energy communications specialist Dana Sotoodeh in an email to MySA. "San Antonio experienced record-breaking heat in May and June. The month of June has been deemed the hottest month on record, resulting in customers' bills being higher."

Sotoodeh added that because of the higher energy demand due to the weather, CPS Energy has had energy demand records broken in San Antonio, as well as statewide. The demand for natural gas has grown faster than the supply, which is creating the highest natural gas prices in the United States over the past 15 years, Sotoodeh said.

"The price of natural gas is up significantly due to a confluence of global market forces, including events in Europe, low storage inventory, and lingering production issues stemming from the pandemic," Sotoodeh said. "We know this is a tough time for our customers because their bills, like others throughout the state, are being driven by factors they were unprepared for with the early and ongoing extreme record heat and global issues affecting gas prices that can't be avoided by utilities."

According to Sotoodeh, CPS Energy has resources to help customers with tips on saving energy, high energy alerts, and a Budget Payment Plan, which averages customer's bills over the last 13 months, creating a "more leveled out payment monthly."

Sotoodeh says 2021 winter storm Uri is not a reason why the bills are higher. A rate request, which was approved by city council in January 2022, roughly added $1.26 to "average residential customers" bills per month to recover the $418 million in "legitimate paid storm fuel cost."