

# NewGen *NEWS*

ISSUE 13, FEBRUARY 2020

## Charting Our Path Forward!



As the utility industry and marketplace continue to evolve, so too must the organizations that advise and support them. In 2019, NewGen undertook initiatives to both strengthen our foundation, as well as to ensure our clients stay at the forefront of their opportunities and challenges. These efforts support NewGen's Vision to **be a consulting company that makes a difference for our clients, employees, and communities**. Below is a look back at a few of our firm highlights from 2019.

**NEWGEN AND MFSG JOIN FORCES!** In July 2019, NewGen and Municipal & Financial Services Group (MFSG) combined forces, strengthening NewGen's presence in the northeast, with the addition of an office in Annapolis, MD, and expanding our clients and capabilities in the Environmental Practice.

**NEWGEN HOLDS INAUGURAL SUMMIT.** NewGen staff gathered in San Diego, CA in August 2019 to celebrate our growth and success, as well as to discuss the future of NewGen and cultivate relationships with our teammates.

**NEWGEN ELECTS THREE NEW DIRECTORS.** In 2019, NewGen membership elected to welcome three new Directors, effective January 2020 - Mr. Scott Burnham (Energy - Lakewood, CO), Mr. Matthew Garrett (Water/Wastewater - Dallas, TX), and Ms. Allison Trulock (Solid Waste Practice - Orlando, FL). Their insight and innovation in serving our clients directly contributes to the success of their respective practices and our firm. Congratulations!

**NEWGEN DONATES ~\$81K TO CHARITY IN 2019.** Each year NewGen donates 1% of our revenues to charitable organizations as a way to share our success within our communities and with causes that are close to us as a company or individually. In 2019, these funds were spread amongst 36 organizations nationwide, including the Juvenile Diabetes Research Foundation, Cystic Fibrosis Foundation, and the Cure Alzheimer's Fund. For more information, and a full list of charities, please visit [www.newgenstrategies.net](http://www.newgenstrategies.net).

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## 2019 IN REVIEW

2019 saw the amplification of trends from 2018 – continued strong electric vehicle sales, the possibility of renewed interest in private firms acquiring or operating publicly-owned utilities, and several communities looking to municipalize. The year started with the largest investor owned utility (IOU) in the country, Pacific Gas and Electric Company (PG&E), filing for bankruptcy protection related to the Camp Fire wildfire near Paradise, CA. As part of the bankruptcy process, PG&E sought and received approval for \$5.5 billion in financing to support operations and ongoing safety initiatives during the bankruptcy process. PG&E faced further public scrutiny when it implemented preventative blackouts during high winds, affecting millions of customers for multiple days at a time. PG&E announced this practice would likely continue for 10 years.

The historical trends in power generation continued in 2019 from near records in 2018. Coal plants continued their historic decline, while natural gas and renewables continued to grow. The change in presidential administrations did not impact the trends for coal and renewables. Per the Energy Information Administration's (EIA) data, approximately 8,000 megawatts (MW) of coal plants retired in 2019, following record amounts of retirements in 2015 and 2018. With further coal plant closures, and capacity factors at existing coal plants continuing their decline, investment in renewables continues to fill the gaps as more than 8,500 MW of renewables came online in 2019.

There are initial signs that there is a resurging trend in communities to evaluate the privatization of their public utilities. Efforts range from Bernhard Capital Partners and their subsidiary, NextGEN, backed with more than \$1 billion in private equity funding looking for public utility investments, to the nearly \$7 billion offered for JEA, and the sale of the

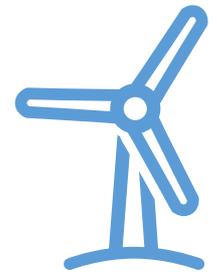
City of Murphysboro, TN's 65,000 meter electric department to a local cooperative after several years of discussions. While the Bernhard Capital Partners' announcement and offers for JEA (that were all eventually rejected) showed sustained interest in acquiring public utilities, several other cities across the country continue to evaluate opportunities for local control and municipalization. This is especially true in California, in the wake of PG&E's issues.

Electric vehicle sales for 2019 remained stable in the U.S. at approximately 240,000 cars, with Tesla's Model 3 dominating the market at nearly 10 times the sales of the next closest model. However, 2019 saw most major car manufacturers reinforcing major commitments to electric vehicles in 2020.



## 2020 OUTLOOK

While 2019 started with PG&E's filing for bankruptcy, 2020 begins with the California Public Utilities Commission (CPUC) considering their reorganization proposal and several communities in California considering and actively evaluating municipalization of their assets. Time will tell if the converging trends of community choice aggregation (CCAs), PG&E's use of preventative blackouts affecting millions at a time for another 10 years, and continued missteps will lead to significant acquisition of PG&E's assets by communities.



The historical trends in power generation portfolios will continue in 2020. In fact, renewables are projected to be a larger part of our power supply mix than coal within the next few years. Coal plant retirements will continue, with another 10,000 MW, and likely more, already announced and scheduled to retire by the end of 2022. Renewables will continue their rapid growth with 50,000 MW of capacity planned in the next three years, and more than 60% of that total planned for 2020 alone. This trend will only grow in the future as we see more utilities and state's adopting increased renewable targets and requirements.

Customer power supply choices continue to grow. In California, a 2017 white paper by CPUC staff estimated that by 2025 over 85% of California's IOU retail load could be served by CCAs and others providing service to direct access customers. This is an increase from the 20% of customers today. There are seven states with current CCA legislation, and New York recently refined its framework to make it easier to form CCAs, leading several municipalities to file implementation plans. With more customers and communities gaining control over their power supply sources, the trend in generation with renewables and clean energy will be further reinforced.

Demand destruction and the decoupling of energy growth from gross domestic product first seen in the Great Recession, continues and is now the norm. EIA's energy outlook notes essentially flat energy growth forecasted through 2050 even with electrification in transportation and buildings. Through 2050, EIA projects a 6% on average year over year growth in electric vehicles to nearly 3 million vehicles sold in 2050, which is an order of magnitude larger than the approximately 240,000 per year currently.

While electric vehicles show promise for growth at utilities, they may also erode system efficiency and increase peak demands if not actively managed. Electric vehicles coupled with the continued adoption of distributed energy resources (DER) further ensure system peak demand growth outpacing energy sales. Facing the potential for increasing peak demands, flat or declining energy consumption, the importance of storage in optimizing the grid's operation for customers and utilities gains clarity.

Providing opportunities for grid resiliency, mitigating peak demands, and reinforced by bipartisan support, battery storage is poised to experience dramatic growth in 2020. The Department of Energy announced aggressive goals and support in addition to several large projects coming online. The EIA also projects battery storage capacity to double by 2022. While about 250 MW of utility scale capacity is projected in 2020, more than 1,000 MW are projected for 2021 per EIA.

### Innovative Rate Design Study

#### Vermont Public Service Department

The Vermont Public Service Department (the Department) engaged NewGen to provide consulting assistance in evaluating the impacts of innovative retail rate designs on the Vermont electric market. The Department's Comprehensive Energy Plan has established policy objectives of increasing renewable energy resources, reducing greenhouse gas (GHG) emissions, and increasing electrification of its various sectors, among other initiatives. This study is designed to quantify the impacts of these objectives as they relate to anticipated changes in customer energy usage.

To accomplish this objective, NewGen will customize its Load Shape Analysis Model (LSAM™) to incorporate hourly Advanced Metering Infrastructure-based customer load shapes provided by selected Vermont utilities. LSAM™ will be utilized to define the relationships between historic customer adoption of DERs and then-current retail rates, as well as various state programs designed to incentivize specific technologies. This historic relationship will provide a basis for developing a projection for customer class technology adoption for selected utilities.

A key component of this study is the facilitation of a series of stakeholder engagement workshops to solicit input from various utility and non-utility members of the Vermont electricity community. These workshops are intended to provide a vision for how changes in retail rate design impact technology adoption, as well as rate impacts to representative customers, utilities, and the state over the near-term, mid-term, and long-term planning horizons.



# Water / Wastewater Insights

## 2019 IN REVIEW

For water and wastewater utilities, the new year starts with an overall level of positivity not seen in the last 15 years. According to the American Water Works Association's [2019 State of the Water Industry Report](#), water and wastewater professionals believe that the state of the industry is sounder than it has been since 2004. While the report recognizes that this new wave of positivity does not yet officially reflect a trend, it does indicate that as an industry we have begun to move past the recent near-term issues associated with eroding public confidence in the quality and reliability of water and wastewater infrastructure. We are instead beginning to focus on the key issues needed to ensure long-term, sustainable service.

In 2019, the industry saw the implementation of America's Water Infrastructure Act (AWIA) passed by Congress in late 2018. This legislation established the Water Infrastructure Finance and Innovation Act (WIFIA) as a full program instead of simply a pilot effort, making [\\$12 billion available for water and wastewater projects](#). AWIA also provided an additional \$1.174 billion to the Drinking Water State Revolving Loan Fund program, a critical program to many service providers which has been instrumental in supporting needed capital investment.



## 2020 OUTLOOK

Despite this increase in overall optimism and additional funding commitments, many of the substantive issues that have plagued water and wastewater providers in the past will remain ever-present in 2020. The ability to fully fund deferred maintenance and needed repairs and replacements will continue to be a challenge as decision-makers carefully weigh and challenge the need for increasing revenues. Affordability of service continues to be a hot topic and used as a challenge to generate needed resources, particularly when pricing of water and wastewater services has increased at a substantially accelerated rate when compared with other consumer goods. For example, since 1998, the Consumer Price Index (CPI) specific to Water, Sewer, and Trash Collection Services has risen at an average annual rate of 4.2% as compared with 2.15% for the composite CPI. While these numbers appear alarming and have been used to support a tamping down of spending and capital investment, they do not consider that water and wastewater services have been underpriced for years.

Historically, greater emphasis was placed on ensuring access to water and wastewater services to support substantial increases in public health than on making water and wastewater systems viable enterprises. This emphasis now challenges the industry, as needed revenue increases are decried as unaffordable for customers. However, this challenge to affordability ignores the historical underpricing and the overall ground that must be gained to develop true financial integrity and long-term sustainability.

Improved communication with both decision-makers and customers can be facilitated by increased financial transparency and disclosure of their true financial condition on the part of service providers. Presenting key stakeholders with performance metrics in an understandable and educational way will assist in better “telling the story,” which is critical to gaining buy-in and overcoming long-held perceptions. Assisting in this process will be the actual quantification and disclosure of deferred maintenance liabilities. Given the increased prevalence of Asset Management Plans and enhancements in available performance data, utilities are better equipped to quantify important capital repairs and replacements when communicating with customers and decision-makers about needed revenues.

While the challenges are great, the professionalism and dedication of industry professionals will undoubtedly enable utilities to overcome these obstacles. The increases in technology and innovation in overall utility management and information systems place an extraordinary amount of data at our fingertips. By using this data to inform and educate, we can enter the new year and embrace the optimistic spirit of our colleagues, knowing that we are making great strides to ensure the long-term sustainability and reliability of critical, life-sustaining resources.



### Stormwater Utility Feasibility and Rate Study

#### Village of Libertyville, IL

After developing water and wastewater rates for the Village in 2015 and 2019, NewGen was engaged to develop a new Stormwater Utility Fee to fund the Village's recently adopted Master Stormwater Management Plan. The Plan identified over \$45.5 million in stormwater improvements to provide protection within the Village (population 22,000) up to the 100-year storm event level. The Village desired a new dedicated funding source for both the operating and capital costs of the improved drainage system.

NewGen helped identify the impact of policy decisions on the level of service provided by the Village, including credit and appeal policies. Given the policy guidelines of the Village, NewGen developed a 25-year revenue requirement projection. NewGen then developed several fee structure alternatives, including fees based on the average residential impervious area (ERU) and fees based on the intensity of development of each parcel. The various fee alternatives allowed the Village to evaluate customer impacts on both the individual and customer class level. Ultimately, the Village was able to identify the fee structure that most closely aligned with the policy goals and philosophy of the Village.

NewGen will support a robust public information campaign over the next several months in anticipation of the fees going into effect on September 1, 2020.



## BACKGROUND

In January 2018, China began in earnest to ban mixed paper and mixed plastics from being imported into China, resulting in many cities feeling the impact of the import ban (China Sword). By 2019, many cities across the U.S., realized that there were long-term implications associated with the China Sword, and this was the “new normal.” Cities with Materials Recovery Facility (MRF) contracts that did not chase the higher prices in China and retained local contractual relationships with mills and processors in the U.S. look very wise.

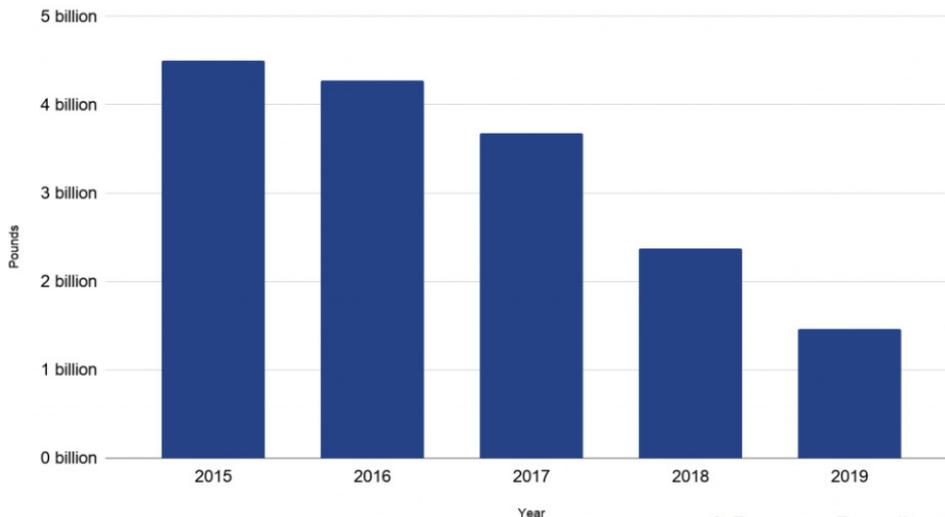
As an example of the precipitous drop in exported recyclables, the figure below reflects the decline in U.S. plastic exports from 2015 to 2019; and from 2017 to 2019, U.S. plastic exports dropped by 60%. Interestingly, China, was the U.S.’ largest scrap plastic importer (by far) until 2019, but was not even among the top 10 importers of U.S. scrap plastic in 2019 – Canada was our #1 importer.

## 2019 REVIEW

In reflecting on the issues confronted by municipal solid waste utilities in 2019, like many in the industry, we believe that the impact of the China Sword on municipal recycling programs across the U.S. continued to be the most pressing issue facing solid waste utilities. Having spoken on the topic at conferences during 2019, listened to recycling professionals and experts within the industry, and worked with our clients in addressing the China Sword issue, NewGen characterizes the following actions taken by many:

1. Discussion and Information Gathering
2. Evaluation of Options
3. Decision Making
4. Sharing of Results

U.S. scrap plastic exports to all countries, 2015-2019



© Resource Recycling, Inc.

Source: [https://resource-recycling.com/plastics/2020/02/12/exports-see-another-major-decline-in-2019/?utm\\_medium=email&utm\\_source=internal&utm\\_campaign=Feb+12+PRU](https://resource-recycling.com/plastics/2020/02/12/exports-see-another-major-decline-in-2019/?utm_medium=email&utm_source=internal&utm_campaign=Feb+12+PRU)



### Discussion and Information Gathering:

Throughout 2019, municipal recycling coordinators and solid waste staff attended recycling conferences and utilized the SWANA "Open Forum," among other networking opportunities, to actively communicate with each other regarding best practices in addressing the China Sword dilemma. Networking addressed topics such as the education of citizens on contamination, operational issues (anyone for every other week recycling?), and elimination of certain materials (plastics #3-7, etc.) **The key: people began sharing information and ideas.**



**Evaluation of Options:** Following discussions and information gathering, NewGen witnessed local governments (cities and counties) evaluating their most cost-effective options with regard to their recycling services. The key areas addressed during the evaluation process included (not ranked in any particular order):

- 1. Contamination** – With China requiring a maximum of a .5% contamination rate (extremely difficult and expensive to achieve), a glut of materials being processed by MRFs began to accumulate in the U.S. with a resulting impact of depressing prices for these commodities. Mills and end users in the U.S. became increasingly selective in only taking bales with minimal contamination. As a result, there was an increased urgency and level of effort by local governments to work on addressing this issue in coordination with the local MRFs that accepted their materials.
- 2. Every Other Week Collection** – A topic increasingly discussed during 2019 was every other week recycling collection. For cities and counties collecting recyclables on a weekly basis, the question was often raised, did it make sense to transition to every other week recycling? NewGen studied this topic for cities in Arizona, Oklahoma, and Texas during 2018 and 2019. In 2019, the City of Tucson, AZ announced they were transitioning to every other week recycling collection as a way to save money.
- 3. Elimination of Certain Materials** – Some local governments began discussions to determine whether they should discontinue collection of certain materials. The materials most frequently discussed were glass and plastics #3-7. Some cities, although fewer in number, have also considered the elimination of mixed paper.
- 4. Addressing MRF Issues** – If nothing else, the China Sword has revealed to recycling

coordinators and environmental service directors which MRFs had strong and stable end market relationships for materials within the U.S. and which ones relied too heavily on China. As a result, some MRFs increased processing fees to \$130 per ton over the past two years, as well as required clients to back-haul their residuals, etc. These actions led some cities, counties, and solid waste agencies to seek alternative MRF processing options.



**Decision Making:** After evaluating a series of options, individuals typically determine a path forward, even if that includes taking no additional actions.

However, in the case of the China Sword, doing nothing is not really an option. As a result, local governments are "tagging carts" in an effort to reduce contamination, communities are transitioning to every other week recycling, some cities are eliminating the collection of certain materials, and in some cases searching for alternative MRF processing options.



**Sharing of Results:** The solid waste and recycling industry has always embraced collaboration and information sharing to benefit a neighboring community, city, or state. These elements have become more important as we see communities continue to share recycling best practices.

One thing that we have **NOT** seen in any material fashion is the abandonment of recycling programs. While some cities have made national news for suspending or canceling their recycle programs, those cities, for the most part, tend to be smaller, oftentimes less than 30,000 in population. Overwhelmingly, cities in the U.S. continue to operate their recycling programs because their citizens expect it, even if it means a rate increase.

For instance, on February 11, 2020, the City of Phoenix voted 7-2 to continue their recycling program, even though it meant a rate increase. This decision was made, in part, as the result of a survey that showed 80% of the 6,000 surveyed citizens responded that recycling was important to them and that they wanted to see it continue, despite a potential rate increase. The vote was further supported by a comprehensive cost of service analysis that detailed the operating and capital costs associated with the City of Phoenix's solid waste and recycling services, along with the City staff proactively conducting 51 meetings in the metro area from November 2019 through January 2020 to educate its citizenry.

### 2020 OUTLOOK

In 2020 we expect more of the same. More discussion, more evaluation, and more “sharpening of the pencil” to provide recycling services in the most cost-effective manner possible. From NewGen’s perspective, while this “transition” from dependency on overseas markets to local U.S. markets has been painful and costly for local governments, we believe that ultimately it will create a more stable and sustainable market for recyclable materials.

Keep in mind that as discussed in many of the solid waste and recycling trade journals, it is estimated that nearly \$2.5 billion in capital projects – either in planning, design, or the construction phase will soon accept recycled fiber (i.e. mixed paper and old corrugated containers). These projects are estimated to consume over 5 million tons of recycled fiber annually once they are operational, and most of these facilities are expected to come online in 2020 and 2021. An estimated \$400 million in capital projects are currently planned and expected to be constructed in the U.S., which will consume 350,000 tons of recycled plastic annually.

The markets are tough right now, but they are expected to become more stable over the next 12 – 24 months.

Hang in there!



### Solid Waste Procurement Assistance

#### City of Victoria, Texas

Building upon a Commercial Front Load Collection Feasibility Analysis completed by NewGen for the City of Victoria in August 2019 (see NewGen News, Issue 12, September 2019, page 9), NewGen was retained in November 2019 to assist the City in providing solid waste procurement assistance. Commercial front load and roll-off collection services are currently provided by Waste Management under terms of a contract that expires October 31, 2021.

Based on the study completed by NewGen in August 2019, NewGen was retained to assist in the development of a Request for Proposal (RFP) for commercial front load and roll-off collection services, as well as operation of the City’s recycling staging facility and residential household hazardous waste (HHW) collection services. Upon issuance of the RFP, NewGen will assist with additional items such as conducting the pre-bid meeting, a financial evaluation of the cost proposals as provided by the bidders, and other associated tasks. Upon completion of the entire procurement process, City staff will arrive at a final decision, with a series of recommendations provided to the City Council for consideration.



## Conferences and Seminars

### **Oklahoma Indian Nations & TxSWANA Chapter Conference (3/3 - 3/5)**

*Hosted by the Oklahoma Indian Nations Solid Waste Association of North America (SWANA) Chapter*

NewGen is a Gold Sponsor and will have a booth at the upcoming conference being held in Norman, OK. In addition, Dave Yanke will speak the morning of Wednesday, March 4th on *Evaluation of Recycling Options*.

Come by the booth to say "hi" to Dave or Michael Armour.

### **TWCA Annual Convention (3/4 - 3/6)**

*Hosted by Texas Water Conservation Association (TWCA)*

NewGen is a Gold Sponsor of the TWCA conference being held in Fort Worth, TX.

### **SWANApalooza (3/23 - 3/26)**

*Hosted by Solid Waste Association of North America (SWANA)*

Allison Trulock will attend and moderate the session *Knowledge is Power: Waste Reduction Education through Schools, Programs, & Special Events* at SWANApalooza being held in Atlanta, GA.

### **RuralWaterCon 2020 (3/25 - 3/27)**

*Hosted by Texas Rural Water Association (TRWA)*

NewGen will attend and have a booth at the upcoming conference held in San Antonio, TX. Additionally, Dave Yanke will speak Friday morning on *Financial Resiliency*.

Come by the booth to say "hi" to Dave or Stephanie Crain.

### **Texas Water 2020 (3/31 - 4/3)**

*Hosted by Texas American Water Works Association (TXAWWA)*

NewGen staff will attend Texas Water 2020 being held in Fort Worth, TX. Additionally, Matthew Garrett will present *A Community Seeing Red – Fixing Red Water Without Going in the Red Financially* on Friday, April 3rd.

### **CMUA Annual Conference (4/5 - 4/7)**

*Hosted by California Municipal Utilities Association (CMUA)*

NewGen staff will attend the CMUA Annual Conference being held in San Francisco, CA.

### **GFOAT Spring Institute (4/5 - 4/7)**

*Hosted by Government Finance Officers Association of Texas (GFOAT)*

NewGen staff will attend the GFOAT Spring Institute being held in San Antonio, TX.

### **GFOA Annual Conference (5/17 - 5/20)**

*Hosted by the Government Finance Officers Association (GFOA)*

NewGen will attend the GFOA Annual Conference being held in New Orleans, LA.

### **TVPPA Annual Conference (5/17 - 5/20)**

*Hosted by the Tennessee Valley Public Power Association, Inc. (TVPPA)*

NewGen staff will attend the TVPPA Annual Conference being held in Orange Beach, AL.



# NewGen New Hires

## **BRIAN DICKMAN, EXECUTIVE CONSULTANT**

Vancouver, WA

Brian Dickman joined NewGen in February 2020, with over 17 years of experience in the utility industry and a focus on regulatory analytics. He has extensive experience preparing and evaluating utility revenue requirement and cost allocation studies, developing utility avoided costs, and evaluating the impact of new initiatives and transactions on a utility and its customers. In addition to his extensive technical experience, Brian understands the regulatory governance process and has personally testified as an expert witness before the public utility commissions of Oregon, California, Utah, Idaho, Washington, and Wyoming.

## **TIA CARNES, ANALYST**

Nashville, TN

Tia Carnes joined NewGen part time in October of 2019 and became full time as an Analyst in February 2020. She completed her undergraduate work at Cairn University and is currently an MBA candidate at Belmont University with plans to graduate in August 2020 with a concentration in finance.

## **KAITLYN MALEC, ANALYST**

Dallas, TX

Kaitlyn Malec joined NewGen as an Analyst in January 2020. She completed her undergraduate work and Master of Public Service and Administration at Texas A&M University in May 2019.

## **KATIE FOWLER, SR. ADMINISTRATIVE ASSISTANT**

Dallas, TX

Katie Fowler joined NewGen as a Senior Administrative Assistant in January 2020. Katie supports NewGen offices in both Dallas, TX and Lakewood, CO.



Have a question? Contact us at [info@newgenstrategies.net](mailto:info@newgenstrategies.net) | [www.newgenstrategies.net](http://www.newgenstrategies.net)  
Colorado | Florida | Maryland | Michigan | Tennessee | Texas | Washington