



I hope everyone had a meaningful and fun Memorial Day. Coming down from the high of 2018 log prices is hard to do, but just the same, we are still seeing competitive log values in a now flat market. Depending on your forestland goals, now is a great time to sell logs. As consolation for a tough planting season, hopefully we have a wet spring, which would also delay fire season. It's time to spray certain weeds like scotch broom and get pre-commercial thin and slashing projects completed before fire season.

Go Beavs!

If you want to plan a timber harvest or other forest operation, please give me a call at (503) 654-2221 or send me an email at bkeller@woodlandmgmt.com. In addition to timber harvests, Woodland offers a variety of services—including reforestation, timber cruising, management plans, competition control in plantations, forestland valuations, and road maintenance. - Brent

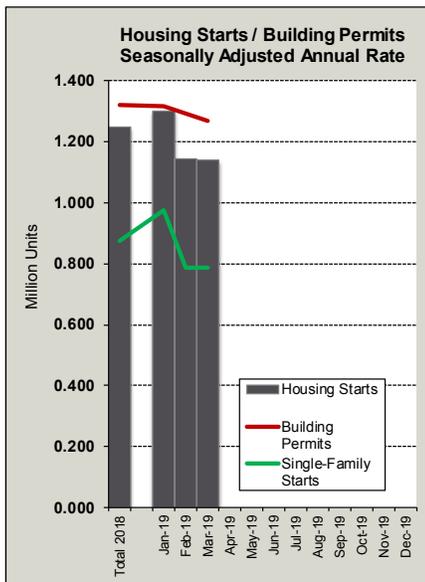


Woodland Client - Yamhill County

## MARKET WATCH: HOUSING, LUMBER AND LOGS

### HOUSING STARTS

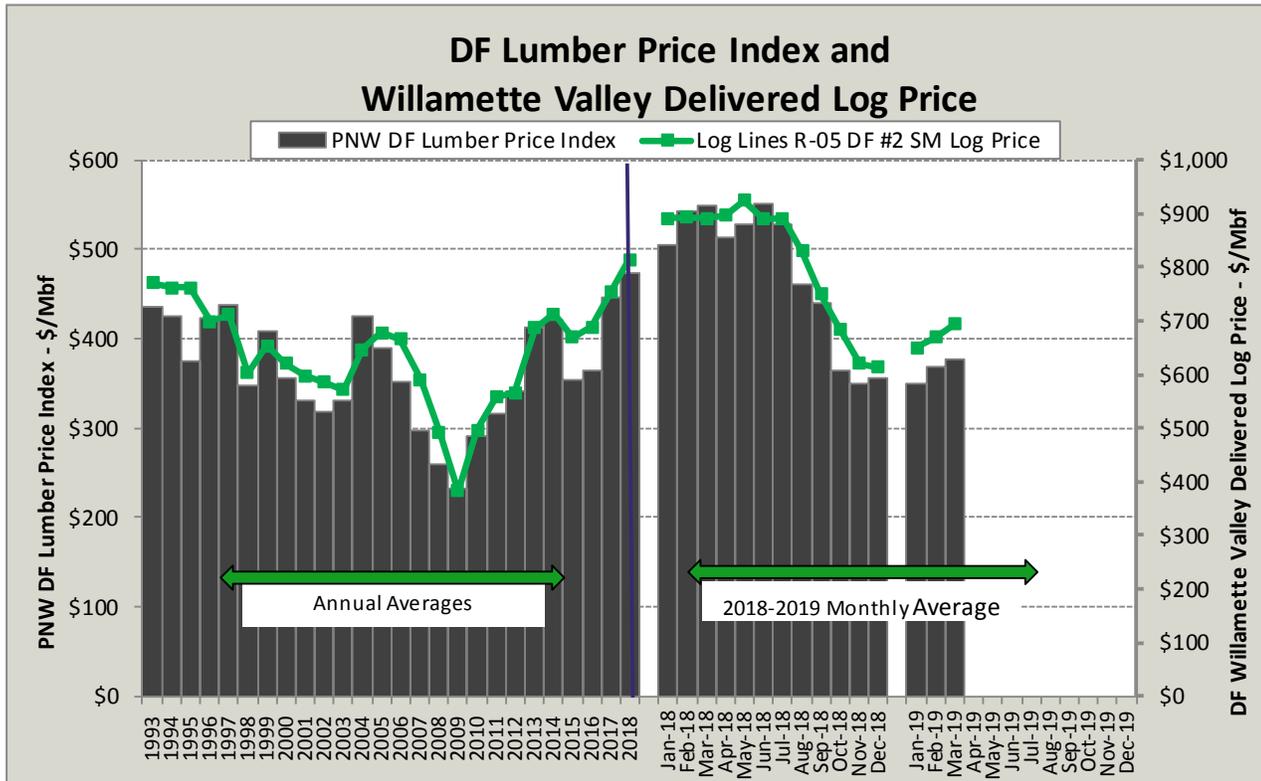
U.S. housing starts decreased 0.3% overall in March. Single-family starts dropped 0.4% and building permits were down 1.7%. Analysts were surprised by March's poor showing, having expected significant improvements. (Wall Street Journal, 3/8/19).



March 2019 Housing Starts (million units, seasonally adjusted):					
	Mar 2019	Feb 2019	Monthly Difference	Mar 2018	Annual Difference
All Starts	1.139	1.142	-0.3%	1.327	-14.2%
Single-Family Starts	0.785	0.788	-0.4%	0.882	-11.0%
Building Permits	1.269	1.291	-1.7%	1.377	-7.8%
Single-Family Building Permits	0.808	0.817	-1.1%	0.851	-5.1%

Source: U.S. Census Bureau

## LUMBER & LOGS



DF lumber prices increased again in March, as shown above. We hope we've seen the bottom of the cycle, but note the wide gap between lumber and log values in the graph above – can these lumber prices support these log prices? [Note that lumber and log prices are on different scales in the chart.]

- March DF #2S log prices, as reported by Log Lines, increased \$25 to \$694/Mbf, which is 3.7% above the prior month, 22.1% below February 2018, and 4.7% below the 5-year average.
- At \$377/Mbf, the DF lumber index price for March increased 2.3% from February 2019, which is 31.4% below March 2018, and 7.8% below the 5-year average.

### March 2019 Douglas-fir Prices:

	Mar 2019	Feb 2019	Change from Previous Month	Mar 2018	Change from Previous Year	5 Yr Annual Average	Current month compared to 5 Yr Annual Average
Logs	\$ 694	\$ 669	3.7%	\$ 891	-22.1%	\$ 728	-4.7%
Lumber	\$ 377	\$ 369	2.3%	\$ 550	-31.4%	\$ 409	-7.8%

Sources: Log Lines Willamette Valley DF #2S monthly average price & WWPA Pacific NW Coast Douglas-Fir monthly

## MARKET NEWS

### **WWPA Lumber Track Report**

Western mill production decreased in February by 2.2% year-over-year for the first two months of 2019. However, coastal mills fared a bit better than inland mills, with year-over-year production decrease of just 0.9%. (That would be a decrease of just 7 MMbf of logs, across all of western OR and CA). (Western Lumber Facts, 4/4/19)

### **U.S. Softwood Lumber Declined in January**

U.S. total industrial production decreased 0.6% (+3.8% YoY) in January 2019. This was the first decline reported for 8 months. Wood products did not escape the slowdown, with softwood lumber showing the largest decline. These are some of the statistics reported for the wood products industry:

- Pulp, Paper & Allied Products fell 0.2% (+2.3% YoY)
- Lumber & Wood Products: -0.5% (-0.4% YoY)
- Softwood Lumber: -0.8% (-10.4% YoY)
- Wood Fiber: -2.0% (-2.2% YoY) (Forest2Market, 3/19/19)

### **Oregon Cap & Trade Update**

Dozens of amendments to the Oregon cap and trade bill are awaiting action, but committee leaders have said they hope to wrap-up their work soon and send the bill to the House floor for a vote. A House committee work session is scheduled for the bill (HB 2020) on May 3rd. If it passes the Oregon House and Senate, Oregon would become just the second state to enact cap and trade, after California. (Oregon State Legislature, 4/30/19)

The prospect of Oregon passing a cap & trade bill has solid support from the mainstream environmental community. However, in a surprising turn, several progressive groups are urging Oregon's Democratic Congressional representatives not to pass a cap & trade bill this year. The groups say market-based policies like Cap and Trade are ineffective. Cap and Trade, they said, "relies on carbon market schemes that commodify emissions and favor polluters at the expense of communities." Far from taking a conservative approach, these same groups are calling for a ban on new fossil fuel infrastructure and a 100% renewable portfolio standard. (Portland Business Journal, 4/23/19)

In Canada, Prime Minister Justin Trudeau passed a law imposing a carbon tax on provinces that don't impose their own. Three Canadian provinces are suing the government over this regulation and more are rallying against it. Progressives look to carbon tax or cap and trade policies as inevitable, but they have not

Western U.S. Softwood Lumber Production 2019 Year-to-Date Total (Bbf)		Western U.S. Softwood Lumber Production Monthly Total (Bbf)	
2019 YTD Production	2.355	Feb 2019	1.089
2018 YTD Production	2.407	Jan 2019	1.267
Change from Previous Year	-2.2%	Change from Previous Month	-14.0%
		Feb 2018	1.151
		Change from Previous Year	-5.4%
2019 YTD Production as a % of Capacity	80%	Production as a % of Capacity Feb 2019	78%
2018 YTD Production as a % of Capacity	82%	Production as a % of Capacity Jan 2019	82%
Change from Previous Year	-2%	Change from Previous Month	-4%

Western Lumber Facts

been popular everywhere: In 2014 Australia repealed a carbon tax two years after it was imposed. Last year French President Emmanuel Macron was forced to suspend increases in gas and diesel taxes after national protests. Voters in Washington State defeated a carbon tax for the second time in November 2018, and legislators recently pulled a proposal for a statewide carbon tax in Maine.

## Northwest Farm Credit Forecast 1Q 2019



## Rebuilding after the Fire

In Sonoma County, California, lumber sellers are gearing up for increased demand after fires destroyed thousands of homes there in 2017. In an average year, the local lumber yards will supply the building of 280 houses. This year they expect to supply a lot more, perhaps four times that amount. Mead Clark Lumber in Santa Rosa had lumber sales of \$82 million in 2018, up from about \$60 million in 2017, and they expect 2019 to be even higher.

Mead Clark is currently stocking their yard with lumber from Louisiana-Pacific, Boise Cascade, Weyerhaeuser, South Coast Lumber on the Calif./Oregon border, and others in Toronto, Idaho, Oregon, and northern California. It is estimated that 15% of the lumber needed for the fire rebuild is being supplied by lumber companies outside of Sonoma County.

Sixteen months seems to be when the peak building occurs after a big fire event. Due to the November 2018 fire in Butte County, Calif. That destroyed about 14,000 homes, lumber demand is expected to be very high in early 2020—when the rebuild gets into full swing. (Washington Log Market Report, 2/22/19)

## Washington State's New Working Forest Law

Beginning in 2020, any property purchased in Washington State that borders a working forest will be sold with a disclosure notifying the buyer of the proximity to working forestland. Washington's population has increased 53% since 1990. The new law reflects concerns among some forestry industry members as the state's population encroaches nearer to the state's 10.8 million acres of working forestland. (The Lens, 4/9/19)

## **Oregon Cap & Trade Update**

Dozens of amendments to the Oregon cap and trade bill are awaiting action, but committee leaders have said they hope to wrap-up their work soon and send the bill to the House floor for a vote. A House committee work session is scheduled for the bill (HB 2020) on May 3rd. If it passes the Oregon House and Senate, Oregon would become just the second state to enact cap and trade, after California. (Oregon State Legislature, 4/30/19)

The prospect of Oregon passing a Cap and Trade bill has solid support from the mainstream environmental community. However, in a surprising turn, several progressive groups are urging Oregon's Democratic Congressional representatives not to pass a cap & trade bill this year. The groups said market-based policies like Cap and Trade are ineffective. Cap & trade, they said, "relies on carbon market schemes that commodify emissions and favor polluters at the expense of communities." Far from taking a conservative approach, these same groups are calling for a ban on new fossil fuel infrastructure and a 100% renewable portfolio standard. (Portland Business Journal, 4/23/19)

In Canada, Prime Minister Justin Trudeau passed a law imposing a carbon tax on provinces that don't impose their own. Three Canadian provinces are suing the government over this regulation and more are rallying against it. Progressives look to carbon tax or Cap and Trade policies as inevitable, but they have not been popular everywhere: In 2014 Australia repealed a carbon tax two years after it was imposed. Last year French President Emmanuel Macron was forced to suspend increases in gas and diesel taxes after national protests. Voters in Washington State defeated a carbon tax for the second time in November 2018, and legislators recently pulled a proposal for a statewide carbon tax in Maine. (Wall Street Journal, 4/17/19)

## **China Had Record Year of Softwood Imports in 2018**

China imported over 40 million m3 of softwood logs in 2018. This increasing import trend has held for three consecutive years, with 2018 softwood import volumes being 37% higher than in 2015. Even minor log exporters, such as Japan, Poland, Chile and South Africa all expanded their shipments to China in 2018. Major log exporters like the U.S., New Zealand and Uruguay also increased exports of softwood logs to China in 2018. Of the major log suppliers, only Russia and Canada reduced log shipments to China. China has enjoyed price benefits from their diversified list of suppliers because, while the average import price has also increased over the last three years, prices are still below the import prices of 2013 and 2014, when the U.S. and Canada had a larger market share and less competition. (Wood Resources Quarterly, 3/27/19)

## **Is China Devouring the World's Forests?**

Protests against logging—Chinese logging in particular—have erupted across Siberia and the Russian Far East, claiming that the Chinese lumber trade is consuming forests at an alarming and unsustainable rate.

When China began restricting commercial logging in its own natural forests two decades ago, it began increasing the amount of wood imported. It has been reported that the value of China's timber and wood pulp imports has increased more than 10-fold since 1998, reaching \$23 billion in 2017, the highest ever.

China is now the world's largest importer of wood. (The United States is second.) China is also the largest exporter of wood products.

To satisfy demand, China has increasingly turned to Russia, importing huge amounts of wood for construction projects and furniture manufacturing. In addition to purchasing timber and wood products, Chinese companies have purchased logging rights and some are being accused of unsustainable logging, logging outside of contracted boundaries, logging in protected forests, and even setting fire to some forests so that they can be logged without restriction.

Wood imported from Russia has transformed a small border town into one of China's main hubs for wood processing and production. In the last 20 years, more than 120 mills and factories have been built in the area to process raw or rough-cut lumber into plywood, and to manufacture veneer panels, laminated wood, doors, window frames and furniture.

Russia is not the only country where conservationists are protesting Chinese business practices. Critics claim the Chinese are also exploiting lax oversight and stripping forests in Peru, Papua New Guinea, Mozambique and Myanmar. (NY Times, 4/9/19)

### **Shrinking Mill Profits Lead to Curtailments**

Softwood lumber prices have generally fallen faster than the cost of purchasing sawlogs to make the lumber—A general pattern around the globe in late 2018. In the western U.S. and western Canada, margins fell to unprofitable levels for some mills, accompanied by some temporary or permanent curtailments.

In Oregon, both Swanson Group in Glendale and Georgia Pacific in Coos Bay have been curtailed since the beginning of 2019. In B.C., several mills have reported temporary curtailments due to market conditions (and tariffs) in 2019. Some experts predict permanent shutdowns in the near future for some B.C. mills. (Wood Resource Quarterly, 4/16/19 & RBC Capital Markets, 4/15/19)

### **GP Coos Bay Closes**

Georgia Pacific announced the closure of its Coos Bay mill in mid-April. The mill was one of the largest employers in Coos Bay, with 111 employees. All employees are receiving post-layoff severance pay and benefits for 60 days. Further, the GP Toledo mill will be offering employment to all 111 of the former Coos Bay employees. (The distance between Coos Bay and Toledo is about 100 miles.)

Georgia-Pacific's Coos Bay facility opened in 1994. It produced dimensional lumber: 2x4s, 2x6s and similar products. (Oregonian, 4/15/19 & Newport News, 4/18/19)

### **U.S. Survives First Challenge to WTO Regarding Canadian Softwood Lumber Tariff**

In April, the U.S. timber industry applauded a World Trade Organization (WTO) decision that upheld U.S. methodologies for calculating and substantiating tariffs for Canadian lumber dumping practices. This ruling was for one of three challenges that Canada filed with the WTO over the issue. The other two challenges are still pending rulings.

Canada's Ruling Minister, Chrystia Freeland, claimed that Canada will appeal the WTO's late April decision, saying, "We firmly believe that the U.S. duties on Canadian softwood lumber are unfair and unwarranted," (Missoulian, 4/11/19 & Reuters, 4/15/19)

### **BLM Begins Land Reclassification**

The BLM has begun reviewing lands for reclassification and environmental assessments. In January, the BLM was directed to transfer 14,742 acres of public lands to be managed in trust to benefit the Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians with another 17,519 acres to be managed on behalf of the Cow Creek Band of Umpqua Tribe of Indians. This is in response to the Western Oregon Tribal Fairness Act.

Now the BLM must convert 32,000 acres of public domain lands to be managed under the Oregon and California Lands (O&C lands), making whole the 18 western Oregon counties that share in a portion of receipts from timber sales on these lands.

The reclassified lands may be within any of the following Oregon and California grant land counties: Benton, Coos, Clackamas, Columbia, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Tillamook, Washington, and Yamhill Counties. (STL News, 4/6/19)

### **Drone Assisted Logging**

It used to take Big Horn Logging a full day to string more than 3,000 feet of rope across a canyon (to be used for stringing cables across the canyon to run a grapple for dragging logs to a landing), but with the help of a stout, six-propeller drone, the task took about seven minutes. Drone use not only saved time and effort; it also reduced the safety risk for the logging crew. With the capacity to carry 50 lbs., these drones are now being tested to assist with first responders in the areas of search and rescue and firefighting. (Bend Bulletin, 4/4/19)

### **High School Forestry in Tillamook**

A Tillamook High School natural resources program is in the final stages of completing a forest harvest and replanting project on 72 acres owned by the Tillamook County Creamery Association. The class coordinated with agriculture and forestry industry partners and worked alongside several other members of the high school program's advisory board, including Hampton Lumber, Stimson Lumber, the Tillamook School District and the Northwest Regional Education Service District. The TCCA plot of western hemlock and Sitka spruce was surveyed, marked, and inventoried over the past two years by the students, then planted with the same two tree varieties as well as with Western red cedar. Future students will monitor and collect data in their study area to determine whether spraying herbicides is beneficial for optimal tree growth and they will continue to cruise the property as well.

"The goal is to produce workers that have the skills our community partners are looking for to fill the jobs that they have," said their instructor, Lori Loeffler. Her classes have allowed students to gain practical forestry experience. (Washington Log Market Report, 3/1/19)

## **Cascade-Siskiyou National Monument Stands**

A federal judge has ruled against Murphy Timber Investments by determining that President Barack Obama stayed within constitutional principles of the Antiquities Act and did not exceed his statutory authority in adding O&C Act lands into the monument.

Even though Murphy lost the motion, the company owns about 2,000 acres of land within the footprint of the monument and that property is exempt from monument restrictions that ban or limit commercial timber harvest. Thus far, two other federal suits are also challenging the monument expansion and remain unresolved. (Mail Tribune, 4/4/19)

## **Support for the B.C. Forest Industry**

Canada's Premier, John Horgan, is calling for the exclusive use of B.C. lumber in the building of several major projects in the province. Horgan's announcement is a move to revitalize the struggling forestry industry in B.C. in the province, which is partially due to the U.S. softwood lumber tariffs.

Engineered wood plays heavily in the new strategy. The province announced last month that it was changing the building code to allow for construction of wood buildings up to 12 stories high, becoming the first Canadian province to do so. Horgan committed the use of engineered wood on the new St. Paul's Hospital in Vancouver and in the upgrade to the Royal B.C. Museum in Victoria. (Global News, 4//19)

## **Bees Thrive Post-Fire**

Oregon has over 500 species of bees. Researchers from OSU found that a good place to find diverse bee populations are in areas that have experienced moderate to severe wildfire. The researchers set bee traps at 43 sites within the burn footprint of the 2013 Douglas Complex fire. They found that bees had the most diversity and highest population in the areas that had burned with the most severity.



“Twenty times more individuals and 11 times more species were captured in areas that experienced high fire severity relative to areas with the lowest fire severity,” said Sara M. Galbraith, a postdoctoral researcher in the OSU College of Forestry. “We detected a large number of bees in recently burned forest patches. The bees represented five families and a large subset of Oregon’s wild bee species.”

Researchers noted that the forests with the highest burn severity had open canopies that allowed light into the forest floor, and the additional sunlight contributed to more flowering plants that attracted bees. These conditions mimic early seral forests, and the study results add evidence to the theory that early seral forests are an important link in forest biodiversity. (OSU, 4/15/19)

## **Unprecedented 4FRI: A Holistic Approach to Forest Management**

4FRI (Four Forest Restoration Initiative) is being called the largest project to restore forest health in the history of the U.S. Forest Service (USFS). Through ongoing collaboration with a diverse group of stakeholders, 4FRI is working to plan and carry out landscape-scale restoration of the ponderosa pine forests in northern Arizona. The overall goals of 4FRI are to restore the structure, pattern, composition, and health of fire-adapted ponderosa pine ecosystems; reduce fuels and the risk of unnaturally severe wildfires; and provide for wildlife and plant diversity.

The collaborative has learned that while their goals are ambitious, the forest industry has not been able to keep up. The USFS has a goal of offering 50,000 acres for thinning per year, but industry has only been able to thin 12- to 15,000 acres per year. Some of the constraints the collaborative is working to fix are these:

- Labor shortages
- A lack of mills in some of the work areas, causing expensive transportation costs—particularly for small diameter logs and slash.
- Log scaling costs
- Log export branding requirements
- Matching products removed to the needs of the mills
- Limiting highway weight limits

Even with these constraints, the 4FRI project has been good for the Arizona economy and the forest. Almost 1,000 full and part time jobs were generated last year, creating almost \$50 million in income and close to \$150 million in regional output. Currently 500,000 acres of land in the four forest's footprint has been signed-off by the USFS for completion, and the available geographic area is expected to double in 2020. (Daily Sun, 4/12/19, USDA 4/29/19)

## **Weiler to Purchase Caterpillar Forestry Business**

In the Fall of 2018, Caterpillar announced that it had entered into a preliminary agreement with Weiler, Inc. to sell the Cat purpose-built forestry business. The proposed sale includes the purpose-built forestry product line consisting of wheel skidders, track feller bunchers, wheel feller bunchers, knuckleboom loaders, and related operations facilities. In April 2019, Weiler announced that it had signed a definitive agreement with Caterpillar to purchase the purpose-built forestry business and the deal is expected to close in the Fall of 2019. (Press Release 8/29/18 & 4/15/19)

## **Transparent Wood Windows**



In April, scientists introduced transparent balsa wood that not only transmits light, but also absorbs and releases heat, potentially saving on energy costs. In 2016, scientists reported manufacturing this transparent wood, created by removing a light-absorbing component called lignin from the cell walls of balsa wood, creating a window that was transparent enough to see through and hazy enough to provide privacy. The window also had strength, enabling it to bear heavy loads.

Recently, scientists have been building upon this earlier work to make a transparent wood that has better environmental properties—something biodegradable with thermal storage capabilities that would increase a building's energy efficiency.

The scientists added a polymer called polyethylene glycol (PEG), due to its ability to store heat during temperatures above 80 degrees F and release heat in cooler temperatures, helping to maintain a constant indoor temperature. They also incorporated acrylic into the material to protect it from humidity. Like the earlier version of transparent wood, the new material was slightly hazy and strong, but had the added bonus of storing heat.

The researchers point out that transparent wood has the potential to be more environmentally friendly than other building materials such as plastic, concrete and glass. It could be easier to dispose of after it has served its purpose because PEG and wood are both bio-based and biodegradable. They will continue researching to find a bio-based polymer to replace the acrylic. (American Chemical Society, 4/3/19)

## **EPA Weighs Carbon-Neutrality of Biomass-Generated Power**

After years of study and consideration, the EPA deemed biomass production to be carbon neutral in April 2018. Now, one year later, the EPA has announced a plan to propose that biomass-generated power is also carbon neutral. The proposal is expected this summer and, if adopted, the rule will have implications for the power generation industry as well as other industry sectors. State treatment of biomass varies widely: some states disfavor biomass while other states anticipate using more of it. EPA encouragement is certain to expand the role of biomass within state renewable energy strategies.

Overall, electricity generated from biomass and waste totaled 70.6 million megawatt hours (MWh) in 2018, or about 2% of total U.S. electricity generation. Expansion in electricity generation from biomass and waste stalled in recent years, after growing from 2004 to 2014. (National Law Review, 4/9/19 & Foreign Affairs, 4/12/19)