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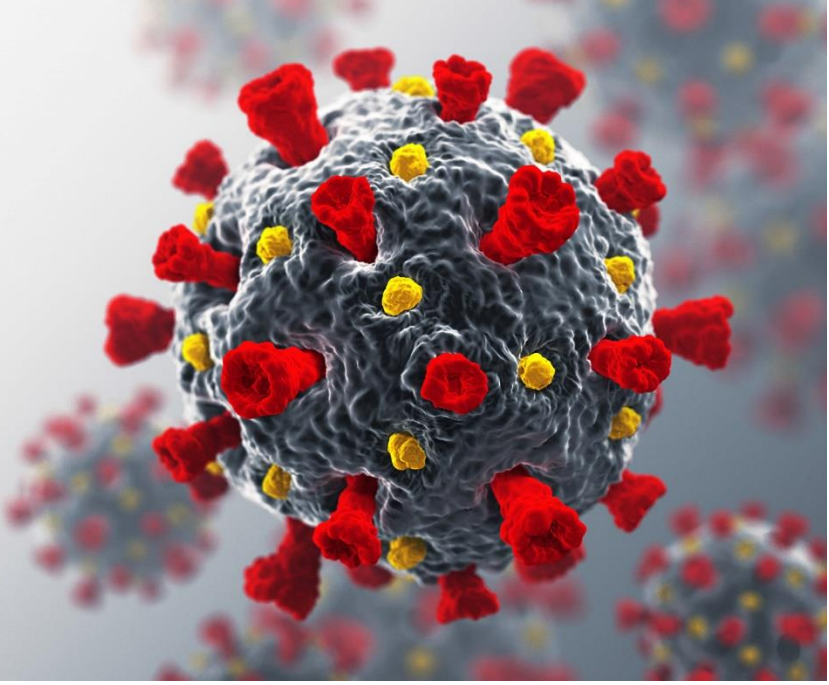

To: Clients

From: Philip Jordan
Vice-President, BW Research Partnership

Date: September 11, 2020

MEMORANDUM

US Energy Employment Initial Impacts from the COVID-19 Economic Crisis, July 2020, Revised

INTRODUCTION

BW Research finds that the U.S. energy sector added 18,800 jobs in July, leaving over 1.13 million energy workers out of work despite nationwide re-openings. There remains a nearly 14 percent decline over pre-COVID-19 employment levels.

Unfortunately for the energy sector, June's job growth was short-lived. Concerns mentioned in previous jobs reports, such as high continued unemployment, casual or paused re-openings, and the exhaustion of many programs from earlier stimulus, were realized in this month's stagnant jobs report.

The August 7 jobs report, which showed that the U.S. economy created 1.5 million new jobs over the previous month, covers the first two weeks of July. These new jobs primarily fall in industries unrelated to energy, such as government, food and accommodation, and education and health services. While the recent jobs report has some positive news for the economy, it also contains some alarming trends.

Initial weekly unemployment claims continue at an historic pace. The most recent week's claims data, released on August 6, showed a slight decline in initial jobless claims, but is still at a level more than 50 percent higher than any week in our history prior to March. At the same time, the long-term unemployment rate – defined as 27 weeks of consecutive unemployment – has risen sharply since March to 1.5 million, representing more than 9 percent of the 16.3 million currently unemployed overall. Also alarming is the rise in permanent unemployment over the same period, which was a tiny fraction of the initial job losses in the Spring but now represents 2.9 million job losses, or nearly 18 percent of the total unemployed.[1]

The economy is currently reacting to viral resurgence as well as the drag from extended unemployment and related economic losses. Consumer confidence, while up from its lows in April and May, dropped six points in July. The continued viral spread, reversal of travel advisories and reopening plans, and the exhaustion of many of programs from earlier stimulus have added to this volatility.

This report shows no state nor energy sector as a significant job loser or gainer. However, impacts of this pandemic are not being felt evenly throughout worker demographics. Black and Hispanic workers

[1] BLS Employment Situation Summary, Aug 7. https://www.bls.gov/news.release/empsit.nr0.htm.

continue to feel disproportionately high levels of unemployment, and while white workers have seen slight job growth over the past month, Black workers saw no change.[2]

IMPACTS

- Motor vehicles, the largest energy industry, increased by 8,700 jobs over July. The motor vehicles sector has suffered 361,600 lost jobs since the start of March, or a 14 percent decline.

- Fuels was the only sector to decline in July, losing almost 2,900 jobs. Job losses for fuels total 173,200 or 15 percent since the beginning of March, however, this is not limited to just the COVID-19 pandemic; tanking oil markets in the first quarter of 2020 also heavily impacted the US fuels sector.

- Energy efficiency, the second largest energy-related sector, followed closely behind motor vehicles, growing by 6,900 jobs in July. Energy efficiency has lost 355,500 jobs since the start of the pandemic for a 15 percent decline.

- Transmission, distribution, and storage and electric power generation experienced growth of about 3,500 and 2,500 added jobs, respectively. The transmission, distribution, and storage and electric power generation sectors have lost 139,100 jobs or 10 percent, and 98,100 jobs or 11 percent, respectively, since the start of the pandemic.

- Clean energy jobs added 10,400 jobs in July. The clean energy industry has lost 15 percent of its workforce since the start of the pandemic, or almost 503,900 jobs lost.

- Fossil and nuclear fuels and electricity generation, traditional transmission and distribution, and gas and diesel motor vehicles account for about 8,400 regained jobs in July but has dropped nearly 13 percent or 623,600 jobs since March.

- More than 3,600 jobs were lost in oil and gas generation, fuels, and transmission and distribution in July. This totals almost 108,400 oil and gas jobs lost since March, or a more than 16 percent decline.

- Coal mining and electric power generation lost more than 450 jobs in July, totaling about 12,500 jobs lost since the start of the pandemic or a 13 percent decline. This does not include the coal job losses in other activities like mining machine manufacturing and distribution and transportation.

California had the largest employment growth, adding more than 4,000 jobs in July's slight increase. Illinois, Michigan, New York, and Massachusetts followed, all adding more than 1,000 jobs. Massachusetts, Hawaii, North Carolina, California, and Illinois saw the largest growth in terms of percent of their respective energy sectors, all with 0.5 percent or more energy employment gains over the past month. States that have fared worse than average so far include North Dakota, Oklahoma, and New Mexico, all losing more than 100 energy jobs. For more information about energy job growth by state, see

[2] BLS Employment Situation Summary, Aug 7. https://www.bls.gov/news.release/empsit.nr0.htm.

Appendix A: State Energy Job Growth in July 2020 and Appendix B: Cumulative State Energy Job Losses Since Pre-COVID.

Of the 3,200 jobs added back to the traditional energy sector in July, California and Illinois grew the most, adding more than 1,400 and 400 jobs, respectively. Texas saw the largest traditional energy employment decrease in July, losing nearly 1,100 jobs. North Dakota and Oklahoma each lost more than 200 traditional energy jobs as well. This is largely due to continued job losses in oil, gas, and coal production, generation, and transmission, distribution, and storage.

The BLS Employment Situation report shows us that in the overall economy, racial and ethnic minorities, women, young workers, and those with less educational attainment are currently suffering higher unemployment rates.[3] About 23% of all jobs in Automobile Manufacturing are held by Black or African-American workers (economy-wide representation is about 12%) and about a third of fossil extraction workers like roustabouts and rotary drill operators are Hispanic/Latino. New policies and programs must focus on equitable recovery given the diversity within many energy-related sectors.

METHODOLOGY

BLS employment reports for June and July, as well as the DOL unemployment weekly summaries, were used to calculate the labor impacts for the month. This month's data was updated due to revisions in the underlying BLS Employment Situation report and DOL weekly unemployment insurance claims source data. Please see prior months' memoranda for a more complete explanation of the methodology.

ABOUT BW RESEARCH

BW Research is a full-service applied research firm that is focused on supporting our clients with economic & workforce research, customer & community research, as well as strategic planning and evaluation services. For more information and analysis on economic impacts related to COVID-19, please visit: http://bwresearch.com/covid

[3] https://www.bls.gov/news.release/empsit.nr0.htm

APPENDIX A: STATE ENERGY JOB GROWTH IN JULY 2020 (REVISED)

State	Job Growth	Percent Growth	State	Job Growth	Percent Growth
Alabama	220	0.2%	**Montana**	41	0.2%
Alaska	-36	-0.2%	**Nebraska**	115	0.2%
Arizona	316	0.3%	**Nevada**	108	0.2%
Arkansas	140	0.2%	**New Hampshire**	65	0.2%
California	4,038	0.5%	**New Jersey**	452	0.4%
Colorado	376	0.3%	**New Mexico**	-111	-0.2%
Connecticut	223	0.3%	**New York**	1,030	0.3%
Delaware	73	0.4%	**North Carolina**	942	0.5%
District of Columbia	76	0.4%	**North Dakota**	-163	-0.4%
Florida	947	0.3%	**Ohio**	818	0.3%
Georgia	305	0.2%	**Oklahoma**	-146	-0.1%
Hawaii	105	0.5%	**Oregon**	312	0.4%
Idaho	63	0.2%	**Pennsylvania**	529	0.2%
Illinois	1,322	0.5%	**Rhode Island**	74	0.4%
Indiana	673	0.3%	**South Carolina**	252	0.2%
Iowa	163	0.2%	**South Dakota**	45	0.2%
Kansas	195	0.3%	**Tennessee**	486	0.3%
Kentucky	92	0.1%	**Texas**	-45	0.0%
Louisiana	62	0.0%	**Utah**	106	0.1%
Maine	51	0.2%	**Vermont**	63	0.3%
Maryland	318	0.3%	**Virginia**	509	0.3%
Massachusetts	1,020	0.6%	**Washington**	431	0.3%
Michigan	1,267	0.4%	**West Virginia**	-85	-0.1%
Minnesota	278	0.2%	**Wisconsin**	317	0.2%
Mississippi	105	0.2%	**Wyoming**	-73	-0.2%
Missouri	339	0.2%	**US TOTAL**	**18,799**	**0.3%**

APPENDIX B: CUMULATIVE STATE ENERGY JOB LOSSES SINCE PRE-COVID (REVISED)

State	Jobs Lost	Percent Decline	State	Jobs Lost	Percent Decline
Alabama	21,759	14.6%	**Montana**	4,073	13.3%
Alaska	5,921	20.6%	**Nebraska**	6,700	11.7%
Arizona	13,058	10.6%	**Nevada**	6,864	11.2%
Arkansas	6,495	10.1%	**New Hampshire**	2,412	7.8%
California	142,173	14.9%	**New Jersey**	21,017	14.3%
Colorado	14,292	8.9%	**New Mexico**	11,100	19.1%
Connecticut	9,024	11.9%	**New York**	30,961	9.0%
Delaware	2,822	12.3%	**North Carolina**	35,912	16.6%
District of Columbia	3,175	15.4%	**North Dakota**	8,398	16.8%
Florida	47,624	13.9%	**Ohio**	43,811	12.5%
Georgia	56,072	27.2%	**Oklahoma**	24,112	17.4%
Hawaii	5,894	23.0%	**Oregon**	10,919	11.3%
Idaho	3,215	9.7%	**Pennsylvania**	49,847	18.5%
Illinois	25,809	8.3%	**Rhode Island**	4,544	19.1%
Indiana	33,996	11.9%	**South Carolina**	18,422	13.0%
Iowa	9,144	10.5%	**South Dakota**	1,267	4.7%
Kansas	8,916	10.4%	**Tennessee**	18,683	8.8%
Kentucky	39,255	25.8%	**Texas**	99,484	10.4%
Louisiana	37,504	22.0%	**Utah**	5,561	6.4%
Maine	3,075	12.1%	**Vermont**	2,591	11.4%
Maryland	14,608	11.1%	**Virginia**	20,157	10.7%
Massachusetts	24,093	12.8%	**Washington**	30,285	19.5%
Michigan	68,556	16.3%	**West Virginia**	9,026	13.7%
Minnesota	16,869	13.1%	**Wisconsin**	15,613	10.2%
Mississippi	9,377	13.4%	**Wyoming**	4,736	10.7%
Missouri	18,310	11.3%	**US TOTAL**	**1,127,530**	**13.5%**