



April 21, 2015

TO: Members, Subcommittee on Energy & Power

FROM: Committee Majority Staff

RE: Legislative hearing on the Discussion Draft entitled “Title II: 21st Century Workforce”

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## I. INTRODUCTION

On Thursday, April 23, 2015, at 10:00 a.m. in 2125 Rayburn House Office Building, the Subcommittee on Energy & Power will hold a hearing on the Discussion Draft entitled “Title II: 21st Century Workforce.”

## II. WITNESSES

- Dr. Tracy Brundage, Ph.D., Vice President, Workforce Development and Continuing Education, Pennsylvania College of Technology, on behalf of ShaleNET;
- Mr. Rick Jarvis, Vice President of Field Construction, Morrow-Meadows Corporation, on behalf of National Electrical Contractors Association;
- Dr. Ramanan Krishnamoorti, Ph.D., Chief Energy Officer, University of Houston;
- Mr. Felix W. Ortiz III, Founder, Chairman and CEO, Viridis Learning;
- Ms. Monica Martinez, President, Hispanics in Energy; and,
- Mr. Charles Wilson, Senior Reactor Operator (SRO) Trainer, Managing Partner, CW Consulting Group, LLC.

## I. BACKGROUND

Energy and manufacturing are major drivers of U.S. job growth. Revolutionary advancements in energy development, namely the coupling of horizontal drilling and hydraulic fracturing, have contributed to record production rates,<sup>1</sup> relatively low energy prices,<sup>2</sup> and a surge of quality jobs that pay more than the national average.<sup>3</sup>

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<sup>1</sup> U.S. field production of crude oil averaged more than 8.6 million barrels per day in 2014, a level not seen since 1986. U.S. dry natural gas production surpassed 25.7 trillion cubic feet in 2014, more than 42% growth since 2005. See U.S. Energy Information Administration [U.S. Field Production of Crude Oil](#) and [U.S. Dry Natural Gas Production](#).

Despite the recent decline in the price of oil, the Energy Information Administration predicts strong U.S. energy production through 2020 – led by crude oil and natural gas – and reduced reliance on energy imports.<sup>4</sup> This sustained growth in energy production, combined with an aging workforce, will continue to drive job creation across the energy sector. Growing domestic supplies of relatively low cost energy and raw materials also will benefit the manufacturing sector. Overall, the outlook is promising for the oil and natural gas industry, which supports 9.8 million full and part time jobs, and the manufacturing industry, which supports an estimated 17.6 million jobs.<sup>5</sup> Jobs in renewable energy, which represent a small part of the overall energy workforce, are also poised for growth. There are currently 174,000 Americans working in solar and 85,000 working in wind.<sup>6</sup>

The Department of Energy (DOE) plays a key role in energy and manufacturing workforce development. Traditionally, DOE's role in workforce development has focused primarily upon the support of students through research and development awards at universities and at the DOE national laboratories. Today, that role also includes collaborating with industry in support of educational and training programs focused on career mobility.

DOE's numerous workforce development programs and activities span the Department's program offices, labs, and technology centers. DOE does not collect and report information specific to workforce development-related programs and activities, and there is no official tasked with coordinating such efforts. However, the Secretary recently announced the creation of the Jobs Strategy Council, to "integrate the research, technical and economic resources of the Energy Department to respond to the workforce and economic development needs of the energy industry."<sup>7</sup> The Jobs Council consists of members from 20 offices within the Department of Energy, including representatives from the Department's National Laboratories. It also will work directly on interagency partnerships with the U.S. Departments of Labor, Education, Defense, Commerce, Agriculture, and Veterans Affairs.

The Discussion Draft entitled "Title II: 21st Century Workforce" directs the Secretary of Energy to establish and carry out a comprehensive program to improve education and training for energy and manufacturing-related jobs in order to increase the number of skilled workers trained in energy and manufacturing fields. The Secretary of Energy is directed to coordinate

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<sup>2</sup> Natural gas spot prices at Henry Hub averaged \$3.73 per million British thermal unit (MMBtu) in 2014, falling from a peak average of \$8.86 per MMBtu in 2008. Spot prices for crude oil (West Texas Intermediate) averaged \$48.54 per barrel in the first three months of 2015, falling from an average of \$99.67 per barrel in 2008. See Energy Information Administration [Cushing, OK WTI Spot Price](#) and [Henry Hub Natural Gas Spot Price](#).

<sup>3</sup> The May 2013 annual average wage for all the STEM (science, technology, engineering and math) occupations was \$79,640. This is roughly 1.7 times the national annual average wage for all occupations (\$46,440). See Bureau of Labor Statistics, [Beyond the Numbers](#), (April 2014).

<sup>4</sup> See Energy Information Administration, [Annual Energy Outlook 2015](#).

<sup>5</sup> See Bureau of Labor Statistics, [Current Employment Statistics](#); National Association of Manufacturing [Facts About Manufacturing](#); American Petroleum Institute, [2015 State of American Energy Report](#).

<sup>6</sup> See the Solar Foundation and the American Wind Energy Association.

<sup>7</sup> See Department of Energy press release [Energy Department Creates Jobs Strategy Council to Focus on Job Growth in Energy Economy](#) (January 23, 2015).

and collaborate with Federal partners including the Department of Commerce and Bureau of Labor Statistics, industry, and organized labor in developing the program.

## **II. SUMMARY OF THE DISCUSSION DRAFT**

### **Title II: 21st Century Workforce**

#### **Section 2101: Energy and Manufacturing Workforce Development**

##### **Subsection (a): In General**

Section (a) provides that the Secretary of Energy shall establish and carry out a comprehensive program to improve education and training for energy and manufacturing-related jobs in order to increase the number of skilled workers trained in energy and manufacturing fields.

##### **Subsection (b): Priority**

Subsection (b) provides that the Secretary shall make educating and training underrepresented groups for energy and manufacturing jobs a national priority.

##### **Subsection (c): Direct Assistance**

Subsection (c) provides that in carrying out the energy and manufacturing workforce program, the Secretary shall provide direct assistance (including financial assistance awards, technical expertise, mentorships, internships, and partnerships) to schools, community colleges, workforce development organizations, nonprofit organizations, labor organizations, apprenticeship programs, and minority serving institutions. The Secretary shall distribute direct assistance in a manner proportional to energy and manufacturing industry needs and demand for jobs, consistent with information obtained through collaboration with the industry, the Bureau of Labor Statistics, the Department of Commerce, and the Bureau of Census.

##### **Subsection (d): Clearinghouse**

Subsection (d) directs the Secretary to establish a clearinghouse to maintain and update information and resources on training and workforce development programs for energy and manufacturing-related jobs.

##### **Subsection (e): Collaboration**

Subsection (e) directs the Secretary to encourage and foster collaboration among the DOE national labs and Federal partners, including the Department of Commerce and the Bureau of Labor Statistics, schools, workforce training organizations, unions, and industry to identify needs and share best practices. The Secretary is directed to publish an annual report on energy and manufacturing job creation by sector.

##### **Subsection (f): Guidelines for Educational Institutions**

Subsection (f) provides that the Secretary, in collaboration with the Secretary of Education, the Secretary of Commerce, the Secretary of Labor, the National Science Foundation, and industry, shall develop guidelines for educational institutions of all levels to help provide graduates with the skills necessary to work in energy and manufacturing-related jobs.

**Subsection (g): Outreach to Minority Serving Institutions**

Subsection (g) directs the Secretary to give special consideration to increasing outreach to minority serving institutions.

**Subsection (h): Outreach to Displaced and Unemployed Energy and Manufacturing Workers**

Subsection (h) directs the Secretary to give special consideration to increasing outreach to employers and job trainers preparing displaced and unemployed energy and manufacturing workers for emerging energy and manufacturing jobs.

**Subsection (i): Guidelines to Develop Skills for an Energy and Manufacturing Industry Workforce**

Subsection (i) directs the Secretary to collaborate with representatives from the energy and manufacturing industries (including the oil, gas, coal, nuclear, utility, pipeline, renewable, and petrochemical, manufacturing, and electrical construction sectors) to identify the areas of highest need in each sector and to develop guidelines for the skills necessary to train the workforce.

**Subsection (j): Enrollment in Training and Apprenticeship Programs**

Subsection (j) directs the Secretary to work with industry, organized labor, and community-based workforce organizations to help identify students and other candidates to enroll in training and apprenticeship programs for energy and manufacturing-related jobs.

**III. ISSUES**

The following issues will be examined at the hearing:

- Outlook for energy and manufacturing employment
- Department of Energy's workforce development activities
- Discussion Draft entitled "Title II: 21<sup>st</sup> Century Workforce"

**IV. STAFF CONTACTS**

If you have any questions regarding this hearing, please contact Brandon Mooney or Tom Hassenboehler (202) 225-2927.