

**AMENDMENT TO THE RULES COMMITTEE PRINT  
FOR H.R. 8  
OFFERED BY MR. RUSH OF ILLINOIS**

At the end of the bill, add the following new title:

1           **TITLE VII—21ST CENTURY**  
2           **WORKFORCE**

3   **SEC. 7001. ENERGY AND MANUFACTURING WORKFORCE DE-**  
4           **VELOPMENT.**

5           (a) IN GENERAL.—The Secretary of Energy (in this  
6 section referred to as the “Secretary”) shall establish and  
7 carry out a comprehensive program to improve education  
8 and training for energy and manufacturing-related jobs in  
9 order to increase the number of skilled workers trained  
10 to work in energy and manufacturing-related fields, in-  
11 cluding by—

12           (1) encouraging underrepresented groups, in-  
13 cluding religious and ethnic minorities, women, vet-  
14 erans, individuals with disabilities, and  
15 socioeconomically disadvantaged individuals to enter  
16 into the science, technology, engineering, and mathe-  
17 matics (in this section referred to as “STEM”)  
18 fields;

1           (2) encouraging the Nation's education system  
2           to equip students with the skills, mentorships, train-  
3           ing, and technical expertise necessary to fill the em-  
4           ployment opportunities vital to managing and oper-  
5           ating the Nation's energy and manufacturing indus-  
6           tries;

7           (3) providing students and other candidates for  
8           employment with the necessary skills and certifi-  
9           cations for skilled, semiskilled, and highly skilled en-  
10          ergy and manufacturing-related jobs; and

11          (4) strengthening and more fully engaging De-  
12          partment of Energy programs and labs in carrying  
13          out the Department's Minorities in Energy Initia-  
14          tive.

15          (b) PRIORITY.—The Secretary shall make educating  
16          and training underrepresented groups for energy and  
17          manufacturing-related jobs a national priority under the  
18          program established under subsection (a).

19          (c) DIRECT ASSISTANCE.—In carrying out the pro-  
20          gram established under subsection (a), the Secretary shall  
21          provide direct assistance (including financial assistance  
22          awards, technical expertise, wraparound services, career  
23          coaching, mentorships, internships, and partnerships) to  
24          schools, community colleges, workforce development orga-  
25          nizations, nonprofit organizations, labor organizations, ap-

1 prenticeship programs, and minority serving institutions.  
2 The Secretary shall distribute direct assistance in a man-  
3 ner proportional to energy and manufacturing industry  
4 needs and demand for jobs, consistent with information  
5 obtained under subsections (e)(3) and (i).

6 (d) CLEARINGHOUSE.—In carrying out the program  
7 established under subsection (a), the Secretary shall estab-  
8 lish a clearinghouse to—

9 (1) maintain and update information and re-  
10 sources on training and workforce development pro-  
11 grams for energy and manufacturing-related jobs,  
12 including job training and workforce development  
13 programs available to assist displaced and unem-  
14 ployed energy and manufacturing workers  
15 transitioning to new employment; and

16 (2) act as a resource, and provide guidance, for  
17 schools, community colleges, universities (including  
18 minority serving institutions), workforce develop-  
19 ment programs, labor-management organizations,  
20 and industry organizations that would like to de-  
21 velop and implement energy and manufacturing-re-  
22 lated training programs.

23 (e) COLLABORATION.—In carrying out the program  
24 established under subsection (a), the Secretary—

1           (1) shall collaborate with schools, community  
2 colleges, universities (including minority serving in-  
3 stitutions), workforce-training organizations, na-  
4 tional laboratories, unions, State energy offices,  
5 workforce investment boards, and the energy and  
6 manufacturing industries;

7           (2) shall encourage and foster collaboration,  
8 mentorships, and partnerships among organizations  
9 (including unions, industry, schools, community col-  
10 leges, workforce-development organizations, and col-  
11 leges and universities) that currently provide effec-  
12 tive job training programs in the energy and manu-  
13 facturing fields and institutions (including schools,  
14 community colleges, workforce development pro-  
15 grams, and colleges and universities) that seek to es-  
16 tablish these types of programs in order to share  
17 best practices and approaches that best suit local,  
18 State, and national needs; and

19           (3) shall collaborate with the Bureau of Labor  
20 Statistics, the Department of Commerce, the Bureau  
21 of the Census, and the energy and manufacturing  
22 industries to develop a comprehensive and detailed  
23 understanding of the energy and manufacturing  
24 workforce needs and opportunities by State and by  
25 region, and publish an annual report on energy and

1 manufacturing job creation by the sectors enumer-  
2 ated in subsection (i).

3 (f) GUIDELINES FOR EDUCATIONAL INSTITU-  
4 TIONS.—

5 (1) IN GENERAL.—In carrying out the program  
6 established under subsection (a), the Secretary, in  
7 collaboration with the Secretary of Education, the  
8 Secretary of Commerce, the Secretary of Labor, the  
9 National Science Foundation, and industry shall de-  
10 velop voluntary guidelines and best practices for  
11 educational institutions of all levels, including for el-  
12 ementary and secondary schools and community col-  
13 leges and for undergraduate, graduate, and post-  
14 graduate university programs, to help provide grad-  
15 uates with the skills necessary to work in energy and  
16 manufacturing-related jobs.

17 (2) INPUT.—The Secretary shall solicit input  
18 from the oil, gas, coal, renewable, nuclear, utility,  
19 energy-intensive and advanced manufacturing, and  
20 pipeline industries in developing guidelines under  
21 paragraph (1).

22 (3) ENERGY AND MANUFACTURING EFFICIENCY  
23 AND CONSERVATION INITIATIVES.—The guidelines  
24 developed under paragraph (1) shall include grade-  
25 specific guidelines for teaching energy and manufac-

1 turing efficiency and conservation initiatives to edu-  
2 cate students and families.

3 (4) STEM EDUCATION.—The guidelines devel-  
4 oped under paragraph (1) shall promote STEM edu-  
5 cation as it relates to job opportunities in energy  
6 and manufacturing-related fields of study in schools,  
7 community colleges, and universities nationally.

8 (g) OUTREACH TO MINORITY SERVING INSTITU-  
9 TIONS.—In carrying out the program established under  
10 subsection (a), the Secretary shall—

11 (1) give special consideration to increasing out-  
12 reach to minority serving institutions (including his-  
13 torically black colleges and universities, predomi-  
14 nantly black institutions, Hispanic serving institu-  
15 tions, and tribal institutions);

16 (2) make resources available to minority serving  
17 institutions with the objective of increasing the num-  
18 ber of skilled minorities and women trained to go  
19 into the energy and manufacturing sectors;

20 (3) encourage industry to improve the opportu-  
21 nities for students of minority serving institutions to  
22 participate in industry internships and cooperative  
23 work/study programs; and

24 (4) partner with the Department of Energy lab-  
25 oratories to increase underrepresented groups' par-

1 participation in internships, fellowships, traineeships,  
2 and employment at all Department of Energy lab-  
3 oratories.

4 (h) OUTREACH TO DISPLACED AND UNEMPLOYED  
5 ENERGY AND MANUFACTURING WORKERS.—In carrying  
6 out the program established under subsection (a), the Sec-  
7 retary shall—

8 (1) give special consideration to increasing out-  
9 reach to employers and job trainers preparing dis-  
10 placed and unemployed energy and manufacturing  
11 workers for emerging energy and manufacturing  
12 jobs;

13 (2) make resources available to institutions  
14 serving displaced and unemployed energy and manu-  
15 facturing workers with the objective of training indi-  
16 viduals to re-enter the energy and manufacturing  
17 workforce;

18 (3) encourage the energy and manufacturing in-  
19 dustries to improve opportunities for displaced and  
20 unemployed energy and manufacturing workers to  
21 participate in internships and cooperative work/study  
22 programs; and

23 (4) work closely with the energy and manufac-  
24 turing industries to identify energy and manufac-  
25 turing operations, such as coal-fired power plants

1 and coal mines, scheduled for closure and to provide  
2 early intervention assistance to workers employed at  
3 such energy and manufacturing operations by—

4 (A) giving special consideration to employ-  
5 ers and job trainers preparing such workers for  
6 emerging energy and manufacturing jobs;

7 (B) making resources available to institu-  
8 tions serving such workers with the objective of  
9 training them to re-enter the energy and manu-  
10 facturing workforce; and

11 (C) encouraging the energy and manufac-  
12 turing industries to improve opportunities for  
13 such workers to participate in internships and  
14 cooperative work-study programs.

15 (i) GUIDELINES TO DEVELOP SKILLS FOR AN EN-  
16 ERGY AND MANUFACTURING INDUSTRY WORKFORCE.—In  
17 carrying out the program established under subsection (a),  
18 the Secretary shall collaborate with representatives from  
19 the energy and manufacturing industries (including the  
20 oil, gas, coal, nuclear, utility, pipeline, renewable, petro-  
21 chemical, manufacturing, and electrical construction sec-  
22 tors) to identify the areas of highest need in each sector  
23 and to develop guidelines for the skills necessary to de-  
24 velop a workforce trained to go into the following sectors  
25 of the energy and manufacturing sectors:

1           (1) Energy efficiency industry, including work  
2           in energy efficiency, conservation, weatherization, or  
3           retrofitting, or as inspectors or auditors.

4           (2) Pipeline industry, including work in pipeline  
5           construction and maintenance or work as engineers  
6           or technical advisors.

7           (3) Utility industry, including work in the gen-  
8           eration, transmission, and distribution of electricity  
9           and natural gas, such as utility technicians, opera-  
10          tors, lineworkers, engineers, scientists, and informa-  
11          tion technology specialists.

12          (4) Alternative fuels, including work in biofuel  
13          development and production.

14          (5) Nuclear industry, including work as sci-  
15          entists, engineers, technicians, mathematicians, or  
16          security personnel.

17          (6) Oil and gas industry, including work as sci-  
18          entists, engineers, technicians, mathematicians, pe-  
19          trochemical engineers, or geologists.

20          (7) Renewable industry, including work in the  
21          development, manufacturing, and production of re-  
22          newable energy sources (such as solar, hydropower,  
23          wind, or geothermal energy).

24          (8) Coal industry, including work as coal min-  
25          ers, engineers, developers and manufacturers of

1 state-of-the-art coal facilities, technology vendors,  
2 coal transportation workers and operators, or mining  
3 equipment vendors.

4 (9) Manufacturing industry, including work as  
5 operations technicians, operations and design in ad-  
6 ditive manufacturing, 3-D printing, advanced com-  
7 posites, and advanced aluminum and other metal al-  
8 loys, industrial energy efficiency management sys-  
9 tems, including power electronics, and other innova-  
10 tive technologies.

11 (10) Chemical manufacturing industry, includ-  
12 ing work in construction (such as welders, pipe-  
13 fitters, and tool and die makers) or as instrument  
14 and electrical technicians, machinists, chemical proc-  
15 ess operators, chemical engineers, quality and safety  
16 professionals, and reliability engineers.

17 (j) ENROLLMENT IN TRAINING AND APPRENTICE-  
18 SHIP PROGRAMS.—In carrying out the program estab-  
19 lished under subsection (a), the Secretary shall work with  
20 industry, organized labor, and community-based workforce  
21 organizations to help identify students and other can-  
22 didates, including from underrepresented communities  
23 such as minorities, women, and veterans, to enroll into

- 1 training and apprenticeship programs for energy and
- 2 manufacturing-related jobs.

