

117TH CONGRESS
1ST SESSION

S. RES. 224

Expressing the sense of the Senate that the United States must seize the opportunity to create millions of jobs, become a net exporter of clean energy, and secure a better, more equitable future by accelerating the electrification of households, buildings, and businesses in the United States, modernizing the United States electricity grid, and continuing on the path towards decarbonizing electricity generation in the United States by 2035.

IN THE SENATE OF THE UNITED STATES

MAY 18, 2021

Mr. HEINRICH (for himself, Mr. WHITEHOUSE, Mr. BOOKER, Mr. PADILLA, Mr. MERKLEY, Mr. MARKEY, Mr. DURBIN, Mr. BLUMENTHAL, Ms. KLOBUCHAR, Mr. BENNET, Mr. VAN HOLLEN, Mr. WYDEN, Ms. ROSEN, Ms. WARREN, Mr. LUJÁN, and Mr. KING) submitted the following resolution; which was referred to the Committee on Energy and Natural Resources

RESOLUTION

Expressing the sense of the Senate that the United States must seize the opportunity to create millions of jobs, become a net exporter of clean energy, and secure a better, more equitable future by accelerating the electrification of households, buildings, and businesses in the United States, modernizing the United States electricity grid, and continuing on the path towards decarbonizing electricity generation in the United States by 2035.

Whereas the United States enjoys an abundance of clean energy resources, world-class research facilities, cutting-edge industrial capabilities, and an unrivaled culture of entrepreneurship and technological innovation;

Whereas, as of the date of adoption of this resolution, technology exists to power the majority of energy systems in the United States with zero-emission electricity;

Whereas achieving widespread electrification—

- (1) will reduce the overall energy needs of the United States economy by up to 50 percent; and

- (2) can substantially decrease overall consumer energy costs while maintaining the same or better lifestyles for individuals and families in the United States;

Whereas national and subnational economies around the world, including in the United States, are engaged in a fundamental transition away from energy systems based on fossil fuels to zero-emission energy systems;

Whereas the United States has the opportunity to become a clean energy superpower, and in the process has the opportunity—

- (1) to become a net exporter of bulk zero-emission electricity and of products made with zero-emission electricity;

- (2) to capture new and expanding power and technology markets;

- (3) to benefit from the ongoing global transition away from fossil fuel energy towards widespread electrification using zero-emission electricity; and

- (4) to become an international leader in the production and adoption of zero-emission vehicles;

Whereas climate change caused by human activities, especially by greenhouse gas emissions from fossil fuel combustion, represents a serious, present, and growing threat—

- (1) to human health, security, and economic well-being; and
- (2) to the environment;

Whereas low-income communities and communities of color are disproportionately impacted by the harmful effects of climate change and air pollution, including being at a higher risk of experiencing—

- (1) severe floods, droughts, and wildfires;
- (2) economic dislocation; and
- (3) significant health problems, including pneumonia, asthma, bronchitis, heart attacks, strokes, and lung cancer;

Whereas transitioning the energy systems of the United States to zero-emission electricity would—

- (1) drastically reduce net greenhouse gas emissions in the United States;
- (2) improve air and water quality throughout the United States; and
- (3) improve numerous health conditions associated with the burning of fossil fuels for millions of individuals in the United States;

Whereas the work required to electrify the economy of the United States would produce millions of high-paying, sustainable jobs that would—

- (1) be created throughout the United States, including in urban, rural, suburban, and Tribal communities; and

(2) require directly translatable skills from individuals who, as of the date of adoption of this resolution, hold jobs in—

- (A) the fossil fuel industry;
- (B) the construction and building industry;
- (C) the electricity industry, including residential and commercial electricians; and
- (D) the automotive industry;

Whereas the average household in the United States spends, as of the date of adoption of this resolution, approximately \$4,500 per year on energy, including \$2,000 per year on vehicle fuel;

Whereas, with supportive policy, households in the United States can save up to half of their annual energy costs by electrifying their household energy systems, including through—

- (1) the installation of—
 - (A) rooftop or distributed photovoltaic solar and home battery systems;
 - (B) electric heat pumps and electric heat pump water heaters; and
 - (C) electric household appliances; and
- (2) the purchase of electric vehicles;

Whereas many low- and moderate-income families in the United States lack access to credit and financing options that would enable those families to install money-saving electrified household energy systems;

Whereas reaping the benefits of electrification could be made more accessible and cost-effective for individuals in the United States, so that the access and costs compare more favorably with other countries, by—

(1) reducing the up-front capital outlays typically required; and

(2) decreasing the cost of local permitting and regulations for rooftop solar and other distributed renewable energy generation in the United States;

Whereas investments in energy efficiency programs can—

(1) reduce the size and cost of electric heating systems;

(2) help increase systemic resiliency to periods of extreme temperature; and

(3) in addition to other investments in infrastructure, help improve the ability of the electric power grid to serve peak electric demand;

Whereas utility-scale wind and solar installations are among the lowest-cost sources of electricity available in the United States;

Whereas additional interregional high-voltage direct-current electricity transmission capacity—

(1) is critical to the development of new clean energy generation; and

(2) can help ensure reliable and consistent electricity supply; and

Whereas supporting rapid electrification and innovation in all sectors of the United States economy while transitioning to zero-emission electricity production using proven generation technologies is one of the fastest, most efficient ways to reduce United States greenhouse gas emissions, reduce the average energy bills of people of the United States, and create millions of good-paying jobs to put individuals in the United States back to work in response to the COVID–19 pandemic: Now, therefore be it

1 *Resolved*, That it is the sense of the Senate that—

2 (1) the United States must seize the oppor-
3 tunity to create millions of jobs, become a net ex-
4 porter of clean energy, and secure a better, more eq-
5 uitable future by accelerating the electrification of
6 households, buildings, and businesses in the United
7 States, modernizing the United States electricity
8 grid, and continuing on the path towards decarboni-
9 zing electricity generation in the United States by
10 2035;

11 (2) the goals described in paragraph (1) are
12 consistent with, and should be achieved through, ef-
13 forts that prioritize the objectives of—

14 (A) creating millions of good-paying jobs,
15 with collective bargaining agreements, and ad-
16 vancing a thriving, equitable economy with an
17 expanded middle class;

18 (B) maintaining the global leadership of
19 the United States in innovation;

20 (C) ensuring that not less than 40 percent
21 of the benefits of Federal investments in elec-
22 trification efforts flow to historically margina-
23 lized communities and individuals dispropor-
24 tionately affected by the health and environ-
25 mental impacts of fossil fuels;

1 (D) rehiring through place-based policies,
2 retraining, and certifying, for electrification and
3 clean energy jobs, individuals that, as of the
4 date of adoption of this resolution, hold jobs in
5 the fossil fuel industry (referred to in this reso-
6 lution as “energy veterans”);

7 (E) advancing strong labor and safety
8 standards throughout the supply chain by using
9 certain Federal provisions, including—

10 (i) chapter 83 of title 41, United
11 States Code (commonly known as the
12 “Buy American Act”); and

13 (ii) subchapter IV of chapter 31 of
14 part A of subtitle II of title 40, United
15 States Code (commonly known as the
16 “Davis-Bacon Act”);

17 (F) decreasing the harmful health and en-
18 vironmental impacts of climate change, which
19 fall disproportionately on low-income people and
20 communities of color in the United States;

21 (G) ensuring access to low-cost, reliable
22 electricity for individuals, families, and busi-
23 nesses, while recognizing and addressing the
24 infrastructural challenges in rural and Tribal
25 communities;

1 (H) modernizing the electric power grid of
2 the United States and its operations to increase
3 the security, resilience, reliability, fairness, and
4 flexibility of the electric power grid;

5 (I) transforming existing industries in the
6 United States into 21st century industries that
7 use and produce clean energy; and

8 (J) enhancing the national security of the
9 United States, including the cybersecurity of
10 the electric power grid; and

11 (3) to succeed, the goals described in paragraph
12 (1) and the objectives described in paragraph (2)
13 should be accomplished through efforts that—

14 (A) electrify the activities of high-emissions
15 sectors, such as the residential and commercial
16 construction, transportation, and industrial sec-
17 tors, including by—

18 (i) supporting and incentivizing the
19 residential and commercial deployment of
20 electric technologies, including battery
21 storage systems, electric heat pumps, elec-
22 tric induction stoves, electric vehicle char-
23 gers, and electric water heaters;

24 (ii) supporting the expansion of resi-
25 dential, commercial, and public electric ve-

hicle charging infrastructure, including in rural areas and low- and moderate-income communities;

(iii) supporting the widespread electrification of public transportation systems, including the expansion of public transportation systems in rural and suburban communities; and

(iv) investing in research, development, demonstration, and deployment programs for electrification of key industrial processes;

(B) increase the deployment of zero-emission electricity resources, including by—

(i) expanding investment in zero-emission electricity generation;

(ii) lowering the permitting and hardware costs, and streamlining the process, of installing distributed energy systems;

(iii) improving the permitting and leasing processes for zero-emission electricity generation facilities on public land and offshore waters within the jurisdiction of the United States; and

1 (iv) ending subsidies for fossil fuel de-
2 velopment on both public and private land;

3 (C) invest in energy efficiency programs
4 paired with electrification measures, including
5 household weatherization and high efficiency
6 electric heating and cooling systems;

7 (D) expand interregional transmission ca-
8 pacity and planning to promote widespread and
9 reliable zero-emission electrification;

10 (E) adopt and expand the use of tech-
11 nologies and processes that will make the elec-
12 tric power grid more resilient, reliable, and effi-
13 cient;

14 (F) improve commercial, infrastructural,
15 and manufacturing capacity for zero-emission
16 electrification, including by—

17 (i) identifying and encouraging best
18 practices for organizing electrification mar-
19 kets across communities and streamlining
20 local regulations and permitting require-
21 ments;

22 (ii) upgrading home-load centers to
23 support the power supply necessary for
24 widespread household electrification;

1 (iii) setting national standards for
 2 electrification projects that align elec-
 3 trification markets across jurisdictions,
 4 while still allowing for private sector inno-
 5 vation and technological advances; and

6 (iv) expanding and electrifying manu-
 7 facturing facilities so that the United
 8 States can produce and export products
 9 made with clean energy;

10 (G) increase the available financing for
 11 zero-emission electrification supporting tech-
 12 nologies at all scales, from utility-scale power
 13 stations and transmission lines to individual
 14 homes and businesses, including by—

15 (i) providing seed funding for a clean
 16 energy and sustainability accelerator that
 17 will leverage public and private investment
 18 in zero-emission electricity across the
 19 United States;

20 (ii) adopting policies to increase avail-
 21 able financing for distributed zero-emission
 22 electricity generation, especially by low-
 23 and moderate-income households and indi-
 24 viduals historically denied access to credit;

1 (iii) increasing financial incentives at
2 the Federal, State, and local levels for do-
3 mestic manufacturing of electric appli-
4 ances, vehicles, technologies, and systems;
5 and

6 (iv) creating accessible financing me-
7 chanisms to make electrification projects
8 affordable for all households, including for
9 both homeowners and renters, across rural,
10 urban, suburban, and Tribal communities
11 across the United States;

12 (H) expand access to, and increase the
13 quality of, higher education, vocational training,
14 and certification programs for workers contrib-
15 uting to the goals described in paragraph (1)
16 and the objectives described in paragraph (2)
17 with an emphasis on—

18 (i) ensuring and encouraging access to
19 those programs for—

20 (I) low-income individuals; and

21 (II) people of color;

22 (ii) eliminating gender-based and
23 race-based pay gaps;

24 (iii) protecting the right of workers to
25 organize and bargain collectively; and

1 (iv) rehiring through place-based poli-
2 cies and retraining of energy veterans;

3 (I) facilitate the modernization of Federal,
4 State, and local building, electric, and other
5 codes to encourage the adoption of low-cost
6 zero-emission electricity resources, including
7 through grant and technical assistance pro-
8 grams;

9 (J) invest in achieving full access to zero-
10 emission electricity for rural and Tribal commu-
11 nities through a combination of new trans-
12 mission and distribution, and new generation,
13 such as through distributed solar and
14 microgrids;

15 (K) pursue a Federal Government-wide ap-
16 proach to zero-emission electrification;

17 (L) increase understanding of the health
18 impacts of indoor and outdoor air pollution cre-
19 ated by fossil fuel appliances and electricity
20 generation, especially on the most vulnerable
21 members of society;

22 (M) invest in research, development, and
23 demonstration on the efficient use, recycling,
24 and waste management of materials used in
25 clean energy technologies, including the sustain-

1 able sourcing and recycling of critical minerals
2 used in the technologies; and
3 (N) increase research, development, and
4 demonstration funding for the next generation
5 of cutting-edge zero-emission electricity re-
6 sources, deployment techniques, and grid mod-
7 ernization technologies.

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