

By: Senator(s) Harkins

To: Energy

SENATE BILL NO. 2436

1 AN ACT TO ENACT THE MICROGRID AND GRID RESILIENCY ACT; AND
2 FOR RELATED PURPOSES.

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MISSISSIPPI:

4 **SECTION 1. Definitions.** (1) This act shall be known and
5 may be cited as the "Microgrid and Grid Resiliency Act."

6 (2) For the purposes of this act, the following words and
7 phrases shall have the meanings ascribed in this section unless
8 the context clearly indicates otherwise:

9 (a) "Microgrid" means a local energy grid with control
10 capability, energy generation, a specific service boundary and the
11 full ability to distribute power to its customers, which energy
12 grid can be connected or disconnected from and operate in tandem
13 with or independently from the traditional grid and can be
14 operated with or without the coordination of the local utility
15 power provider.

16 (b) "Microgrid zone" means an area of designated land,
17 the minimum size of which will be set at one hundred (100) acres



18 within a single county, for which some statutory and regulatory
19 exemptions shall be available.

20 (c) "Community Level Microgrid" means an area of
21 residential zoning seeking to secure their energy through local
22 generation for which the minimum size shall be set by the Public
23 Service Commission.

24 (d) "Demand Response" means a change in the power
25 consumption of a microgrid to help ensure that demand for power is
26 met on the grid during peak demand.

27 (e) "Secondary Frequency Response" means the response
28 to a signal from grid operators to protect the grid during
29 unplanned changes in frequency that are attributed to sudden and
30 unpredictable decreases in supply. Secondary Frequency Response
31 (SFR) can also apply when there are sudden decreases in supply or
32 increases in supply, such as when a power asset goes offline or
33 when demand spike due to unpredictable weather patterns.

34 (f) "Primary Frequency Response" means an automatic or
35 instantaneous response to protect the grid during unplanned
36 changes in frequency attributable to sudden and unpredictable
37 decreases in supply. Primary Frequency Response (PFR) can also
38 apply when there are sudden decreases or increases in supply, such
39 as when a power asset goes offline or when demand spikes due to
40 unpredictable weather patterns.



41 (g) "Microgrid operator" means any individual,
42 business, co-op, utility or firm who manages the operations of the
43 microgrid.

44 (h) "Grid Operator" means a utility, Public Service
45 Commission, midcontinent independent system operator, independent
46 transmission system operator, or any entity that is responsible
47 for managing the stability of the grin in a given area or region.

48 **SECTION 2. Designation of land for microgrid zones**

49 (1) The board of supervisors in each county in this state
50 may petition the Public Service Commission to designate no more
51 than three (3) areas of unincorporated land within the county
52 constituting no less than one hundred (100) continuous acres as a
53 microgrid zone. The designated land shall not include any part of
54 a municipality or land outside the boundaries of the county. A
55 petition may be filed under this subsection to modify as well as
56 create a microgrid zone. The county board of supervisors may also
57 petition the Secretary of State to lower the minimum size to
58 ensure that each county has the ability to participate in the
59 creation of a microgrid zone.

60 (2) Prior to petitioning the Public Service Commission under
61 subsection (1) of this section, the board of supervisors shall
62 hold at least one (1) public hearing with notice of the time and
63 place of the hearing given by publication in a newspaper of
64 general circulation in the county at least once and no less than
65 fourteen (14) days before the date of the hearing.



66 (3) The Public Service Commission shall provide the
67 Secretary of State with an analysis of the potential impact the
68 microgrid zone may have on retail customers outside of the zone
69 and nonparticipating retail customers within the zone and any
70 other information required by rule promulgated by the Secretary of
71 State.

72 (4) The Secretary of State may consider the analysis
73 provided under subsection (3) of this section and any other
74 factors it deems relevant in determining whether to approve a
75 petition submitted pursuant to this section. The Secretary of
76 State shall not approve a petition that does not meet the
77 requirements of subsection (1) of this section but may otherwise
78 approve or deny a petition at its discretion.

79 **SECTION 3. Application and Approval for Microgrids**

80 (1) The Public Service Commission shall oversee individual
81 microgrids built within and outside the microgrid zone.

82 (2) When applying for approval of a microgrid, the
83 commission shall review the application to determine if the
84 microgrid can meet a threshold for approval which will cover:

85 (a) The microgrid's ability to reasonably improve the
86 local utility's electrical efficiency, resilience, reliability and
87 security once it has connected to the grid; and

88 (b) The microgrid's ability to perform demand response
89 and frequency response once connected to the grid.

90 **SECTION 4. Regulatory exemptions; limitations.**



91 (1) Microgrid operators within the microgrid zone upon the
92 point of grid connection must be willing to provide up to twenty
93 percent (20%) of their generation in a demand response program in
94 order to ensure grid stability.

95 (a) All electricity provided from the microgrid zone
96 back to the grid or public utility for demand response shall be
97 provided at a regular rate of return consistent with local power
98 pricing set by the Public Service Commission.

99 (b) Grid operators shall provide at least thirty (30)
100 minutes of advance warning to microgrid operators within microgrid
101 zones for usage of up to five percent (5%) of the microgrid's
102 operating capacity.

103 (c) Grid operators shall give at least one hundred
104 twenty (120) minutes of warning to microgrid operators for any
105 usage over five percent (5%) and up to twenty percent (20%) of the
106 microgrid's supply capacity

107 (2) Microgrid operators within the microgrid zone upon the
108 point of grid connection shall participate in a secondary
109 frequency response in order to ensure grid stability.

110 (a) All electricity provided from the microgrid zone
111 back to the grid or public utility for secondary frequency
112 response shall be provided at current wholesale power pricing and
113 be no less than a regular rate of return set by the Public Service
114 Commission.



115 (b) All power sold back to the grid for secondary
116 frequency response shall receive fair and just compensation as put
117 forth by FERC Order 755.

118 (c) Grid operators shall give at least thirty (30)
119 second of advanced warning to microgrid operators for usage of up
120 to five percent (5%) of the microgrid's operating capacity for the
121 purpose of secondary frequency response and an additional thirty
122 (30) seconds of advanced warning for each additional five percent
123 (5%).

124 (d) Grid operators may give advanced warning for up to
125 twenty percent (20%) of the microgrid's capacity for the purpose
126 of secondary frequency response if the grid operator gives the
127 microgrid at least five (5) minutes of advanced warning.

128 (3) Microgrids shall sustain the response for at least
129 fifteen (15) minutes or until the utility recalls deployment,
130 whichever occurs first, and a resource must be reset and made
131 available for the next event within fifteen (15) minutes after
132 deployment is ended.

133 (4) Microgrid operators within the microgrid zone upon the
134 point of grid connection may, but are not required to, participate
135 in a primary frequency response in order to ensure grid stability.

136 (a) All electricity provided from the microgrid and
137 microgrid zone back to the grid or public utility for primary
138 frequency response shall have its price negotiated between the



139 utility purchasing power from the microgrid and the microgrid
140 operator.

141 (b) Primary frequency response must be deployed within
142 fifteen (15) cycles after grid frequency reaches the trigger
143 threshold to qualify for this program.

144 (4) Except as otherwise provided in this section, the
145 provisions of this title with respect to Public Service Commission
146 rate regulation shall not apply to rates charged for the sale of
147 electricity to a customer who:

148 (a) Consumes the electricity within a microgrid zone;

149 (b) Consumes the electricity for commercial or
150 industrial use; and

151 (c) Is not purchasing the electricity to replace
152 electrical service capacity that existed prior to the
153 establishment of the microgrid zone.

154 (5) Except as otherwise provided in this section, the
155 provisions of this title that prohibit the sale of electricity
156 outside a specified service territory shall not apply to sales to
157 a customer within a microgrid zone who meets the requirements of
158 subsection (d) of this section.

159 (6) Nothing in this section shall be construed as reducing,
160 modifying, eliminating or otherwise altering any applicable
161 requirement of federal law or any local, state, or federal tax
162 that may be imposed.



163 (7) Any public utility providing service under this section
164 shall not recover costs associated with that service through rates
165 imposed on retail customers outside of or not participating in the
166 exemptions provided by a microgrid zone.

167 (8) Service provided by a public utility under this section
168 shall not adversely affect the service provided to other retail
169 customers not participating in the microgrid zone.

170 (9) The Public Service Commission shall regulate rates
171 charged for the use of transmission lines transmitting electricity
172 generated outside of a microgrid to the deregulated industrial
173 zone through transmission lines otherwise regulated by the Public
174 Service Commission by setting a rate that ensures other retail
175 customers not receiving the benefits of any exemption under this
176 section are not disproportionately paying joint and common costs
177 of transmission.

178 (10) Microgrid developers shall apply for a grid
179 interconnection before they begin the development of the microgrid
180 but are not required to wait for approval before building out
181 their operations.

182 (a) Microgrid operators who do not receive approval for
183 their grid interconnect may continue operating up until the point
184 at which they receive approval and may continue operating if their
185 request is denied.

186 (b) If utilities are unwilling or incapable of funding
187 the grid interconnection, microgrid operators may fund the



188 connection at which point the microgrid operator will be exempt
189 from any cost to maintain their connection.

190 (11) The Public Service Commission shall be responsible for
191 implementing and providing programs which enable communities to
192 apply for and operate a community level microgrid. Community
193 level microgrids shall be held to the same standards set forth for
194 microgrids.

195 **SECTION 5. Composition; powers generally.**

196 The Secretary of State shall consider all petitions pursuant
197 to this act.

198 **SECTION 6.** This act shall not apply to contracts for utility
199 services existing prior to July 1, 2023 for community level
200 microgrids unless otherwise determined by the Public Service
201 Commission.

202 **SECTION 7.** The Secretary of State and the Public Service
203 Commission shall promulgate any rules necessary to implement this
204 act on or before July 1, 2023.

205 **SECTION 8.** Sections 1 through 7 of this act shall be
206 codified as a new chapter in Title 77, Mississippi Code of 1972.

207 **SECTION 9.** This act shall take effect and be in force from
208 and after July 1, 2023, and shall stand repealed on June 30, 2023.

