

1 _____ BILL NO. _____

2 INTRODUCED BY _____
3 (Primary Sponsor)

4 A BILL FOR AN ACT ENTITLED: "AN ACT ESTABLISHING GRID MODERNIZATION PLANNING;
5 PROVIDING FOR SMART METER PLANNING; PROVIDING DEFINITIONS; AND PROVIDING AN
6 IMMEDIATE EFFECTIVE DATE."

7
8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

9
10 NEW SECTION. Section 1. Purpose. (1) The purpose of [sections 1 through 5] is to establish energy
11 policies that promote reliable and resilient electric service, create a diverse portfolio of energy resources,
12 provide economic development opportunities, mitigate risk, and result in the adoption of the lowest-cost
13 resource options for the welfare and health of the citizens of this state. To this end, it is the policy of the state
14 to:

- 15 (a) ensure the availability to consumers of affordable and reliable electric service;
- 16 (b) ensure the diversity of energy resources through the adoption of least-cost planning;
- 17 (c) include the consideration of demand-side options as part of the portfolio of resources serving
18 customers, including energy efficiency and demand response;
- 19 (d) encourage innovation that spurs economic development and provides more options to consumers
20 in how they use and manage their electricity needs;
- 21 (e) encourage cost-effective and efficient access to information to support customer participation in
22 electric service transactions;
- 23 (f) encourage the development of distributed energy resources;
- 24 (g) modernize the electric grid to support two-way communication between the customer and the
25 public utility, and to ensure a resilient system that is capable of withstanding or at least minimizing outages
26 during severe weather and other events;
- 27 (h) facilitate the state's effectiveness in a global economy; and
- 28 (i) provide consumer protections in the delivery of electric service, including but not limited to

1 protecting consumer privacy.

2

3 NEW SECTION. Section 2. Definitions. As used in [sections 1 through 5], unless the context clearly
4 indicates otherwise, the following definitions apply:

5 (1) "Aggregator" means an entity that contracts with multiple customers to combine their loads for the
6 purpose of either buying electricity or selling electric products, such as demand reductions, from those
7 customers to the utility or into the market.

8 (2) "Commission" means the public service commission.

9 (3) "Critical peak pricing" means rates that dramatically increase on short notice when costs spike,
10 usually due to weather or to failures of generating plants or transmission lines during a specified, limited time
11 period.

12 (4) "Demand response" means a reduction in energy use in response to system reliability concerns or
13 increased prices when wholesale markets are involved or generation costs in the case of vertically integrated
14 utilities. Demand response must generally be measurable and controllable to participate in wholesale markets
15 or be relied on by system operators.

16 (5) "Distributed energy resources" means any resource or activity at or near customer loads that
17 generates energy or reduces energy consumption. Distributed energy resources include customer-site
18 generation, such as solar photovoltaic systems and emergency backup generators, as well as energy efficiency
19 and controllable loads such as demand response.

20 (6) "Distributed generator" means a power generator producing at the point of consumption, close to
21 the end users of the power, rather than centrally located and dispatched.

22 (7) "Energy efficiency" means the deployment of end-use measures that achieve the same or greater
23 end-use value while reducing the energy required to achieve that result over a period of time.

24 (8) "Energy resources" refers to all resources available to provide adequate service to end-use
25 customers and includes both supply resources such as demand-side resources furnished by distributed energy
26 resources or by utility or third-party-sponsored energy efficiency or demand response programs.

27 (9) "Green button connect" means a nonprofit, government-led initiative to provide customers with
28 access to their usage data.

1 (10) "Grid modernization" means the development of a smart grid that uses information and
2 communication technologies to manage electricity more efficiently and improve resiliency through the use of
3 cutting-edge technologies, equipment, and controls that communicate and work together to deliver electricity
4 more reliably and efficiently and reduce the frequency and duration of power outages.

5 (11) "Peak-time rebate" means a voluntary rate design program that provides a bill credit to a customer
6 who reduces usage below a baseline level during a period of high peak demand or when system reliability may
7 be at risk.

8 (12) "Real-time pricing" means a rate that adjusts as frequently as hourly, based on wholesale
9 electricity costs or actual generation costs.

10 (13) "Renewable energy" means power generating facilities that use wind, solar, hydro, biomass, or
11 other rapidly renewed or nondepleting fuel sources. In some states, qualified renewable resources exclude
12 large hydro stations and some other types of generation.

13 (14) "Shadow bill" means an informational statement included with a customer's bill that clearly
14 illustrates the amount the customer would have paid during the billing period if he or she was on a time-varying
15 rate if the customer is still on a standard tariff rate, or the amount the customer would have paid on a standard
16 rate if the customer has already switched to a time-varying rate.

17 (15) "Smart grid" means an integrated network of sophisticated meters, computer controls, information
18 exchange, automation, information processing, data management, and pricing options that can create
19 opportunities for improved reliability, increased consumer control over energy costs, and more efficient
20 utilization of utility generation and transmission resources.

21 (16) "Smart meter" means an electronic device that records consumption of electric energy in intervals
22 of an hour or less and communicates that information at least daily back to the utility for monitoring and billing.
23 The device also provides the customer with more information to control energy consumption and monthly bills.

24 (17) "Stakeholders" mean interested parties that participate in commission proceedings, including but
25 not limited to utilities, to residential, commercial, industrial, and low-income consumer advocates, and to local
26 governments, environmental advocates, developers, third-party providers, and other organizations as
27 determined by the commission.

28 (18) "Third-party provider" means an entity or business that provides energy services to an end-use

1 customer.

2 (19) "Time of use" means a rate with set periods that vary based on the time of the day and the day of
3 the week and that reflect the cost of generation during those times. The term includes at least an on-peak and
4 off-peak rate.

5 (20) "Utility" means an electric utility that supplies, at a minimum, retail electric distribution service and
6 is regulated by the commission.

7
8 **NEW SECTION. Section 3. Grid modernization and smart grid.** (1) The commission shall, within
9 30 days of [the effective date of this act], begin a regulatory proceeding that results in the issuing of an order
10 not more than 9 months after [the effective date of this act]. The order must include the completion of a
11 comprehensive plan that, at minimum, addresses the following policy objectives:

12 (a) providing guidance to utilities based on input from stakeholders about the contents of utility grid
13 modernization plans; and

14 (b) additional considerations and steps to be taken to achieve grid modernization.

15 (2) A utility shall file a grid modernization plan no later than 12 months after the issuance of the
16 commission's order as described in subsection (1). The plan must include but is not limited to:

17 (a) a detailed plan to modernize its electric grid, which must include but is not limited to:

18 (i) information on system vulnerabilities and proposed solutions;

19 (ii) a detailed plan and timeline for system upgrades; and

20 (iii) a detailed plan for incorporating distributed energy resources, where feasible and cost-effective,
21 including:

22 (A) a hosting capacity analysis to establish a baseline of the maximum amount of distributed energy
23 resources, including portfolios of distributed energy resources, that an existing distribution grid, consisting of
24 feeder through substation, can accommodate safely and reliably without requiring infrastructure upgrades; and

25 (B) a detailed evaluation of the potential contributions from distributed energy resources, including a
26 locational assessment of costs and benefits. The evaluation must be based on reductions or increases in local
27 generation capacity needs, avoided or increased investments in distribution infrastructure, safety benefits,
28 reliability benefits, and any other savings the distributed resources provide to the electrical grid or costs to

1 customers of the utility.

2 (b) for each proposed technology to be adopted, as applicable:

3 (i) the cost;

4 (ii) the cost as compared to other alternatives such as distributed energy resources;

5 (iii) the value to each customer class;

6 (iv) whether the technology provides two-way communication;

7 (v) whether the technology strengthens the grid and improves resiliency issues;

8 (vi) whether the technology provides data that enables third party providers to improve customer
9 service and provide grid services;

10 (vii) whether the technology enables customer interaction and options for the delivery and consumption
11 of electricity; and

12 (viii) whether the technology enables multiple value streams, such as ancillary services, energy, and
13 capacity;

14 (c) a detailed cost-benefit analysis of the grid modernization plan as a whole, which must include but
15 is not limited to an analysis as to whether the long-term benefits outweigh the cost through:

16 (i) reduction in operating costs;

17 (ii) cost avoidance, such as through reduced storm damage and other examples; and

18 (iii) facilitation of new technologies that can help lower distribution and generation costs, such as
19 strategically located distributed energy resources, implementation of time-varying rates, and improved system
20 flexibility and demand response options;

21 (d) a plan for enabling increased demand response and efficiency programs by the utility or third-
22 party providers;

23 (e) a discussion of the interoperability of the system and software proposed so that it can facilitate the
24 exchange and use of information;

25 (f) a demonstration that the proposed technologies are adaptable to upgrades as technologies evolve,
26 in order to avoid obsolescence and stranded cost;

27 (g) a detailed plan for how the plan will:

28 (i) address cybersecurity risks;

- 1 (ii) preserve customer privacy; and
- 2 (iii) educate customers;
- 3 (h) an analysis comparing the cost-effectiveness of the various options; and
- 4 (i) any other information, data, or discussion that the commission requires.
- 5 (3) The commission shall hold a hearing to allow stakeholders to provide comments on the plan,
- 6 consider whether to approve the plan filed by the utility, and, if necessary, identify deficiencies in the plan and
- 7 order the utility to improve and resubmit the plan until it meets the requirements identified in [section 4] in
- 8 accordance with the policy goals in [section 1].
- 9 (4) The commission shall consider whether the proposed plan and the complement of proposed
- 10 technologies:
- 11 (a) enable two-way communication between the customer and the utility;
- 12 (b) strengthen the grid and improve resiliency issues;
- 13 (c) provide value to each customer class;
- 14 (d) provide data that enables third-party providers to offer customers and utilities more cost-effective
- 15 and higher value service options;
- 16 (e) enable customer interaction and options for the delivery of electricity;
- 17 (f) enable multiple value streams, such as ancillary services and distributed energy resources;
- 18 (g) assist in renewable energy integration;
- 19 (h) pass a cost-benefit analysis showing that the long-term benefits exceed the costs through:
- 20 (i) increased system resiliency;
- 21 (ii) reduction in operating costs;
- 22 (iii) cost avoidance, such as through reduced storm damage or avoided cyberattacks; and
- 23 (iv) facilitation of new technologies that can help lower distribution and generation costs, such as:
- 24 (A) strategically located distributed energy resources;
- 25 (B) implementation of time-varying rates; and
- 26 (C) facilitation of low-cost renewable energy and demand response options;
- 27 (i) provide a reasonable tariff and plan for commencing the offering of a time-of-use rate option to all
- 28 customer classes;

- 1 (j) enable increased demand response programs by the utility or third-party providers;
 - 2 (k) demonstrate interoperability of the system and software so that it can facilitate the exchange and
 - 3 use of information;
 - 4 (l) prove adaptable to upgrades as technology evolves, to avoid obsolescence and stranded cost;
 - 5 (m) adequately address cybersecurity;
 - 6 (n) adequately address customer privacy;
 - 7 (o) provide a reasonable customer education plan; and
 - 8 (p) addresses any other factors the commission deems necessary.
- 9 (5) The commission in its order on the utility's proposed plan shall include findings of fact and
- 10 conclusions of law that address the items included in subsection (4).
- 11

12 **NEW SECTION. Section 4. Smart meters.** (1) Utilities seeking the approval of an application to

13 install smart meters shall provide:

- 14 (a) a cost-benefit analysis with respect to the type of smart meter chosen for deployment to various
- 15 customer classes;
- 16 (b) a list of metrics that track achievement of those benefits, and a plan to report and publish utility
- 17 performance on those metrics during and after smart meter roll-out;
- 18 (c) a plan for commencing the offering of a time-of-use rate option for all customer classes, including
- 19 proposed new tariffs for those rate options;
- 20 (d) a plan for the recovery of costs,
- 21 (e) an analysis of rate impacts on each customer class;
- 22 (f) a plan for protecting the privacy or customer information, including but not limited to:
- 23 (i) an acknowledgment that the customer owns the customer's own data;
- 24 (ii) a process for third parties to access individual customer data that requires written customer
- 25 consent;
- 26 (iii) a process for providing data to third-party providers or aggregators in a manner that protects the
- 27 identity of individual customers either through aggregation of similar customers with any identifying customer
- 28 information excluded or through redaction of any information that can be used to identify a specific customer, or

1 by any other means the commission deems appropriate to protect customer privacy; and

2 (iv) a plan for considering or implementing the green button connect program or a similar program that
3 streamlines customer data acquisition.

4 (g) a description of how the utility plans to educate customers on how they can use the smart meter;
5 and

6 (h) any other information that the commission requests.

7 (2) The commission shall establish the terms and conditions for the marketing and selling of demand
8 response by electric utilities, third-party providers, or aggregators of retail customers, including enabling
9 demand response from retail customers to be used by the utility or sold to the utility if provided through a third-
10 party provider or aggregator or sold into the wholesale electricity markets by the utility, third-party provider, or
11 aggregator.

12 (3) Utilities installing smart meters shall offer commission-approved time-varying rates within 1 year of
13 installing the first smart meters. Time-varying rate options may include but are not limited to time-of-use rates,
14 real-time pricing, and critical peak pricing and peak-time rebates as applicable to the appropriate customer
15 class.

16 (4) Utilities shall provide each customer a shadow bill for a period of 1 year following the approval of
17 any applicable time-varying rate, so that customers may evaluate their energy bill under its current tariff rate as
18 compared with a time-varying rate.

19 (5) The commission has the authority to approve, disapprove, modify, or take any action it considers
20 appropriate with respect to the utility application on smart meters.

21 (6) In its order, the commission shall include findings of fact with respect to each individual item set
22 forth in subsection (1).

23

24 **NEW SECTION. Section 5. Grid modernization and smart meter cost recovery.** (1) The
25 commission shall ensure that costs are just, reasonable, and prudent in regard to the policies set forth in
26 [sections 1 through 5]. The commission may not approve any costs incurred by the utility in implementing its
27 approved proposal that are found to be unjust, unreasonable, or imprudent.

28 (2) The commission shall consider the following when approving the costs for grid modernization and

1 smart meters:

2 (a) the rate impacts on each customer class; and

3 (b) a requirement for periodic independent audits of costs.

4 (3) For both grid modernization and smart meters, the commission shall separately require the netting
5 of the benefits against the costs, to reduce the overall cost by:

6 (a) reducing the overall project cost by netting the savings against the costs to be recovered;

7 (b) reducing the base rates and revenue requirements to reflect any costs or cost reductions no
8 longer incurred; or,

9 (c) any mechanism the commission determines will accomplish the goal of capturing all of the cost
10 benefits for the customer and reducing the overall cost to customers of modernizing the grid.

11 (4) The commission shall also:

12 (a) require enforceable reliability objectives, such as reducing the frequency and duration of outages,
13 among other measures, through publicly transparent reporting requirements, performance metrics and
14 incentives, or other mechanisms that the commission considers appropriate; and

15 (b) require that distribution investments are targeted to provide the most significant impacts.

16 (5) The commission shall determine the appropriate cost-recovery mechanism it deems appropriate in
17 light of the policies articulated in [section 1].

18 (6) Any increase in rates to implement any aspect of a grid modernization plan must be proposed and
19 considered as part of a rate case filed by the utility.

20 (7) In approving any costs for grid modernization in a rate case, the commission may also adopt
21 criteria, benchmarks, and accountability mechanisms to evaluate the success of any investment.

22
23 **NEW SECTION. Section 6. Codification instruction.** [Sections 1 through 5] are intended to be
24 codified as an integral part of Title 69, chapter 3, and the provisions of Title 69, chapter 3, apply to [sections 1
25 through 5].

26
27 **NEW SECTION. Section 7. Effective date.** [This act] is effective on passage and approval.

28 - END -