

On Promoting Reasonable Policies for Distributed Energy Resources

1 In a shift from the traditional electric power paradigm, utilities and utility customers are installing
2 distributed energy resources (DERs), including distributed generation (DG) facilities that employ small-
3 scale technologies to produce or dispatch electricity closer to the end use of power. DERs include demand
4 response, energy efficiency programs, and other demand-side management tools, as well as DG resources,
5 such as solar photovoltaic installations, small wind turbines, combined heat and power, fuel cells, micro-
6 turbines, and storage devices (e.g., large lithium batteries or grid-connected electric vehicles (EVs)).
7

8 Driving this exponential growth is the dramatic decrease in the price of DER technology, as well as state,
9 federal, and utility incentives for DER installations and state renewable portfolio standards/clean energy
10 standards. For example, the Infrastructure Investment and Jobs Act, which was signed into law in
11 November 2021, authorized and appropriated additional funding for several programs supporting the
12 deployment of various grid technologies, including investments that enable the integration of DERs and
13 electric vehicle-to-grid technologies. APPA supports these programs that will help public power utilities
14 continue to invest in new and innovative technologies.
15

16 Opportunities for DER deployment have also been accommodated by policies adopted by the Federal
17 Energy Regulatory Commission (FERC).
18

19 Use of DERs may reduce the need for new utility generation assets and ancillary services, allow utilities
20 to avoid higher transmission costs by reducing peak demand, reduce air pollution emitted by traditional
21 fossil fuel-fired generation, and assist utilities in hedging against widespread power outages.
22

23 Despite these potential benefits, DERs may also create operational and economic issues for electric
24 utilities and power customers. For example, too much DG can create excess demand at a substation,
25 causing power to flow from the substation to the transmission grid and increasing the likelihood for high
26 voltage swings and other stresses on electric equipment. In addition, DG is more difficult to monitor and
27 may impact load forecasts. Finally, DG-owning customers may introduce additional operational
28 complexities for transmission, distribution, and generation systems more than non-DG-owning customers.
29 Utilities may need to make capital investments to address these potential strains on the system, and these
30 costs may be borne by both DG-owning and non-DG-owning electric customers.
31

Increased DG use may cause economic issues as well. For example, subject to applicable state or local laws, many electric utilities compensate DG producers through net metering, under which a utility will credit customers with on-site generation for their kilowatt-hour (kWh) sales to the grid and charge them for periods when electricity consumption from the grid exceeds their generation (or the net difference between consumption and generation). Net metering can over-compensate distributed generators with a value of generation that is higher than the utility's avoided cost, potentially shifting fixed costs to non-DG customers. Some states and non-regulated utilities have designed alternative compensation schemes to appropriately value the full costs associated with DG production, including increased customer charges for fixed costs, residential demand charges according to peak kWh usage, time-based pricing, and standby rates. Still, some regulators (states, localities, and non-regulated utilities) have not implemented compensation schemes that properly account for certain fixed charges, and this may create an economic burden for both utilities and power customers.

Utility owned and operated community solar projects owned, in part, by consumers of the electricity produced by these facilities, may allow utilities to more accurately apportion costs and reduce variability on the system, thus addressing several of the issues associated with using solar DG.

The reliability, operational, and economic challenges may be even more acute where DERs participate in organized wholesale electric markets. In its Order No. 2222 issued in September 2020, FERC adopted rule changes to facilitate DER participation in organized wholesale markets. While the new rules raise jurisdictional and practical concerns arising from such wholesale market participation, FERC significantly mitigated these concerns for most APPA members by establishing an "opt-in" mechanism for small utilities under which DERs located on small utility systems may not participate in organized wholesale markets without the consent of the state or local regulator. This framework was modeled on FERC's current rules for participation in demand response aggregations, supported by APPA, under which an RTO/ISO may not accept bids from a demand response aggregator of retail customers served by utilities that distributed more than 4 million megawatt-hours (MWhs) in the previous year if the relevant electric retail regulatory authority (RERRA) affirmatively prohibits wholesale market participation (opt-out), and for customers served by utilities that distribute 4 million MWhs or less, the ISO/RTO may not accept bids from an aggregator unless the RERRA affirmatively permits it (opt-in).

APPA believes that DERs can play an important role in public power's energy portfolio, and it supports member utilities' efforts to safely and effectively install and facilitate the use of DERs. To continue fostering the growth of DERs, APPA believes that it is important that all customers pay their fair share of

the costs of keeping the grid operating safely and reliably. Thus, rate structures should be designed to reflect costs and ensure that those who benefit from the grid are sharing the costs associated with building and maintaining it.

NOW, THEREFORE, BE IT RESOLVED: That the American Public Power Association (APPA) believes distributed energy resources (DERs), including distributed generation (DG) can play an important role in public power’s energy portfolio, and APPA supports member utilities’ efforts to safely and effectively install and facilitate the use of DERs; and

BE IT FURTHER RESOLVED: That APPA believes that it is important that all DER customers pay their fair share of the costs of keeping the grid operating safely and reliably, recognizing the benefits provided by those customers. Thus, retail rate structures, including DER customer compensation policies, must be designed to reflect utility costs and benefits, and to assure that all those who benefit from the grid or provide benefits to the grid are sharing fairly in the cost of building and maintaining it; and

BE IT FURTHER RESOLVED: That APPA supports the utility owned and operated community solar ownership structure for solar DG projects, as this type of ownership can address many of the issues associated with DG usage; and

BE IT FURTHER RESOLVED: That, in implementing the requirements of its Order No. 2222 addressing participation of aggregated DERs in wholesale markets administered by regional transmission organizations (RTOs) and independent system operators (ISOs), the Federal Energy Regulatory Commission (FERC) should respect the actions of public power distribution utilities in regulating the safety and reliability of their distribution systems; and

BE IT FURTHER RESOLVED: That APPA applauds FERC’s adoption in Order No. 2222 of the small utility “opt-in” mechanism under which customers of utilities that distributed 4 million megawatt-hours or less in the previous fiscal year may not participate in DER aggregations unless the relevant electric retail regulatory authority (RERRA) affirmatively allows such customers to participate in DER aggregations; and

BE IT FURTHER RESOLVED: That APPA urges FERC to maintain its current rules for participation in demand response aggregations under which an RTO/ISO may not accept bids from a demand response aggregator of retail customers served by utilities that distributed more than 4 million MWhs in the

100 previous year if the RERRA affirmatively prohibits wholesale market participation (opt-out), and for
101 customers served by utilities that distribute 4 million MWhs or less, the ISO/RTO may not accept bids
102 from an aggregator unless the RERRA affirmatively permits it (opt-in).