Policy Considerations Related to *Distributed Energy Resources*

INTRODUCTION TO CCIF INITIATIVE ON DISTRIBUTED ENERGY RESOURCES (DER)

What is DER? Distributed Energy Resources (DER) include distributed generation, which are non-centralized sources of electricity generation generally interconnected to the distribution system and located at or near customers' homes or businesses. While DER can include energy efficiency and demand response, this collaborative process focuses on distributed generation. Examples of DER addressed by this collaborative include solar panels, energy storage devices, fuel cells, microturbines, reciprocating engines, small wind, backup generation, CHP systems, etc.

What is CCIF's Objective? The role of DER is growing and may require new approaches for providing and regulating electricity services. We recognize the need for a better understanding of costs and benefits of DER. Our goal is to develop a framework to assist policymakers and other stakeholders in evaluating issues related to the potentials and challenges of DER in providing safe, reliable, affordable, cost-effective, and environmentally sound energy supply. In developing this framework, we recognize the differing regulatory and market structures (e.g., vertically integrated, wires-only utilities, etc.) of the states, as well as the potential significance of regional and federal requirements.

POTENTIAL BENEFITS & CHALLENGES OF DER

When paired with appropriate public policies, DER has the potential to provide direct and indirect **benefits** to consumers, both individually and collectively. Depending on the type of DER, benefits that may be realized include:

1. Cost and risk reduction benefits;
2. Security and reliability;
3. Environmental benefits;
4. Innovation, expanded research and development, and other economic benefits; and
5. Expanded customer choice and control.

Likewise, the **challenges** associated with DER should be considered. Depending on type of DER, such challenges may include:

1. Financial impacts on utilities and customers, including increased costs, revenue losses, and cost-shifting;
2. Safety, security, operational control, reliability, and planning;
3. Siting, permitting, and other environmental issues;
4. Maintaining consumer protection standards; and
5. Jurisdictional and regulatory issues.

PRINCIPLES ON DISTRIBUTED ENERGY RESOURCES

Financial & Regulatory Issues

1. Generally, DER costs imposed on utilities should be borne by those who cause the costs. For example, backup or standby utility costs (particularly regarding intermittent DER technologies) should be borne by the operator of the DER.
2. Any required allocation of costs to others should be rational, transparent, based on benefits received, and not unduly burdensome.
3. DER incentives[1] should be based on clear policy objectives and periodically reevaluated based on market conditions. Once the underlying policy objectives are met or as the technologies become cost-competitive or cost-prohibitive, such incentives should be modified or discontinued.
4. Any incentives, through ratemaking practices, taxes, or otherwise, should be fair, transparent, and appropriate.
5. Utility investments required to accomplish DER deployment should be consistent with state policies and recovered in a manner consistent with state laws and regulatory policies.

[1] For purposes of this discussion, participants considered "incentives" as benefits received by or cost reductions to a DER project, such as tax subsidies, rebates, subsidized financing, any net metering arrangement that provides benefits exceeding the underlying value of the energy received from that DER, etc.

6. To the extent that state commissions evaluate new regulatory policies and procedures in light of increased emphasis on DER, they should take into account the interests and concerns of all stakeholders.

Market Development & Deployment Issues

7. Utility and regulatory processes and requirements should allow for customer deployment of DER technologies subject to reasonable rules and regulations.
8. Utility participation in DER markets should be fair, reasonable, non-discriminatory, and overseen and approved by the appropriate regulatory authority.
9. Policies related to DER interconnection or deployment should be fair, reasonable, not unduly discriminatory, and overseen and approved by the appropriate regulatory authorities.
10. DER should be permitted on either the customer side or the utility side of the meter in accordance with interconnection rules and other applicable regulations.
11. While policies and their application may vary by state, DER programs, grants, or subsidies should be periodically evaluated for cost-effectiveness and adjusted by the appropriate regulatory authority as market conditions and policy objectives or requirements change.
12. Utilities and DER providers should work toward appropriate and reasonable data sharing that facilitates capturing system benefits and identifying costs of DER.

Consumer Issues

13. As DER technologies are deployed, consumer protection policies should be periodically reviewed and revised as appropriate. In any event, consumers should be given a clear avenue to resolve complaints.
14. Utilities and DER providers, with the participation of state regulatory bodies and consumer advocates, should develop standards for data protection, access, and disclosure consistent with state requirements.
15. States, consumer advocates, and utilities should coordinate education and customer engagement programs and make available objective information associated with DER technologies.
16. In developing DER policies, particular attention should be given to the cost impacts on all utility customers, including those not participating and those least able to afford such costs.

Safety, Reliability & System Planning Issues

17. Utilities should be aware that changes to utility system planning and operations may be required because of greater integration of DER technologies.
18. DER interconnection standards, procedures, and practices must ensure the safety of the public, first responders, and electric utility workers. These standards, procedures, and practices must also protect utility and customer assets.
19. DER deployment must be accomplished in a manner that does not compromise the continued reliability of utility infrastructure and operating systems.
20. DER deployment should not diminish infrastructure security or cybersecurity.
21. Transmission and distribution planning entities should consider and incorporate as appropriate state DER requirements into their planning processes.