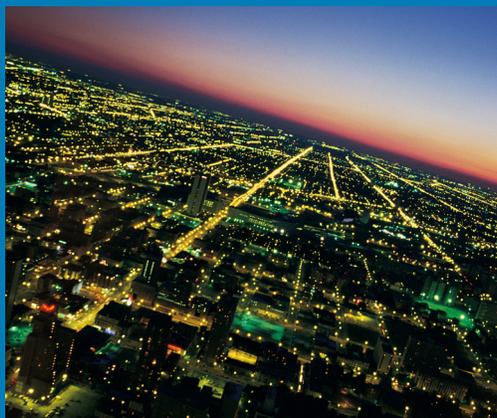


# CCIF

*Critical Consumer Issues Forum*

## The Evolving Distribution System

Helping Consumers Navigate Access to Data, Products & Services



July 2015



# Table of Contents

<b>SECTION I: INTRODUCTION .....</b>	<b>1-2</b>
About CCIF .....	1
Importance of CCIF .....	1
CCIF Track Record.....	1
CCIF's Initiative on the Evolving Distribution System .....	1-2
<b>SECTION II: CONSENSUS FRAMEWORK &amp; PRINCIPLES .....</b>	<b>3-6</b>
Summit Process Objectives .....	3
Evolving Grid Drivers & Implications .....	3-4
Distribution System Planning & Operational Issues .....	4
Transactional Issues .....	4
Consumer Education & Protection Issues .....	5-6
Jurisdictional Issues .....	6
Safety Issues .....	6
Terminology .....	6
<b>SECTION III: CONCLUSION.....</b>	<b>7</b>
Objective Met .....	7
Disclaimer .....	7
Acknowledgments .....	7
Future CCIF Initiatives .....	7
<b>APPENDIX .....</b>	<b>8-11</b>
Acknowledgment of 2015 Summit Participants .....	8-9
Leadership: Executive & Advisory Committees.....	10
Executive Director .....	11



# I. Introduction

## About CCIF

Formed in 2010, the Critical Consumer Issues Forum (CCIF) brings state commissioners, consumer advocates, and electric utility representatives together to tackle consumer-focused energy issues through interactive discourse and debate, to find consensus when possible, and at a minimum, to achieve a clearer understanding of – and appreciation for – each other’s perspectives and positions.

To provide leadership, CCIF organized Executive and Advisory Committees, each with balanced representation from the three core communities. Current members are recognized in the Appendix. These leaders guide each initiative at each of the following steps in the process:

1. A large open kickoff forum, typically collocated with the NARUC & NASUCA Annual Meetings, to introduce a topic and initiate discussion among CCIF’s three core communities and other stakeholders;
2. A series of smaller, invitation-only spring summits in which the three communities engage in facilitated dialogue; and
3. A report issued in the summer to share key takeaways with the broader stakeholder community and serve as a foundation for outreach and additional dialogue on numerous fronts.

## Importance of CCIF

Consumer issues are at the forefront of the energy policy debate. State commissioners, consumer advocates, and electric utilities are uniquely positioned to understand those issues and how best to mitigate any negative impacts on consumers. These three groups play an important role in influencing the policies and decisions with respect to energy at the state level, and these state policies and decisions are often drivers of broader energy policy. Therefore, it stands to reason that they take the lead on addressing key energy issues so that our policies benefit from their experience, expertise, and insights on consumer preferences and concerns. CCIF provides these three core groups a unique opportunity to take that lead – by providing a non-adversarial, collaborative environment in which they can candidly discuss and proactively address a variety of energy issues with potentially broad impacts on electric consumers.

## CCIF Track Record

The CCIF formula has proven successful, and its reports have contributed to the energy policy debate in a constructive way. Through this collaborative effort, CCIF has previously addressed topics including grid modernization, the regulatory process, and distributed generation. All prior reports are available at [www.CCIForum.com](http://www.CCIForum.com).

## CCIF’s Initiative on the Evolving Distribution System

In late 2014, CCIF leadership identified the challenging topics of the evolving distribution system and consumer big data for discussion among the three core groups. Without question, state commissioners, consumer advocates, and electric utilities possess both individual and collective perspectives that should be considered as policies are formed in these areas. Therefore, CCIF kicked off an initiative

on these topics in November 2014 with a program that examined the opportunities and challenges associated with consumer big data, responsible management of advanced consumer intelligence, and translation of evolving distribution system opportunities into capabilities. The forum provided a solid foundation for the summits that followed as well as the framework and principles that ultimately were developed by summit participants from the three communities and included in this report.

As a compilation of participants' perspectives on critical issues pertaining to the evolving distribution system, this report demonstrates that these groups are clearly able and ready to lead both state and national debates on challenging energy issues – those pertaining to the evolving distribution system and countless others. CCIF trusts that the valuable perspectives reflected within these principles will be instrumental as we continue to build upon these ideas through further constructive dialogue with the broader stakeholder community.

## II. Consensus Framework & Principles

### Summit Process Objectives

As the electric distribution system evolves, participants acknowledge the need to provide safe, reliable, and resilient electric service at a reasonable cost; meet growing consumer expectations; address rapid technology innovation; recognize third-party providers; recognize differing state regulatory and market structures; and comply with relevant regional and federal requirements. Participants seek to develop a framework for evolving distribution system issues that will:

1. maintain or improve safety, security, reliability, and resilience;
2. integrate new products, services, and technologies in a manner that maximizes grid-wide benefits at a just and reasonable cost;
3. provide access to an integrated grid under just and reasonable conditions;
4. ensure that the benefits and costs associated with new products, services, and technologies (e.g., distributed energy resources) are accurately quantified and equitably allocated;
5. consider the role of utilities in the development and deployment of new technology;
6. educate consumers to support their informed decision-making;
7. protect consumers with rules that empower state regulators or other appropriate state agencies to investigate and resolve consumer complaints of fraud or privacy breaches;
8. address the access, maintenance, storage, and usage of unprecedented volumes and types of data and information;
9. assist policymakers and other stakeholders in evaluating and re-evaluating issues as new products, services, and technologies are introduced;
10. clarify jurisdictional responsibilities; and
11. recognize state and regional differences.

### Evolving Grid Drivers & Implications

In developing such a framework, participants recognize a number of evolving grid drivers and implications. These include distributed energy resources (DER), such as distributed generation, energy efficiency, and demand response, but also include and are not limited to:

- Technology innovation
- 2-way data communication
- Consumer engagement (energy use; fuel mix; payment and service options)
- Changing load profiles
- Independence (e.g. Department of Defense facilities, micro grids, etc.)
- Policies (clean energy, renewable portfolio standards)
- Environmental regulations
- Incentives and subsidies
- Equitable rate designs
- Innovative financing
- Third-party access to consumers, data, and the grid
- Higher reliability
- Grid flexibility

*List continued on page 4*

- Infrastructure needs
- Resource availability and diversity
- Resilience
- Cyber and physical security
- Safety concerns
- Interoperability
- Preservation of universal service

## Distribution System Planning & Operational Issues

1. Policies should preserve or enhance consumer value, safety, reliability, resilience, infrastructure security, and cybersecurity.
2. Policymakers should consider the role of utilities in the development and deployment of new products, services, and technologies.
3. Distribution system planning should:
  - a) result in just and reasonable rates for all consumers;
  - b) evolve to reflect the increased integration of new products, services, and technologies into the distribution system;
  - c) analyze future scenarios incorporating varying types, amounts, locations, and timing of products, services, and technologies to maintain grid reliability, optimize grid operations, and enhance value for all consumers; and
  - d) with respect to new products, services, and technologies, be strategic and transparent; incorporate stakeholder participation; and protect critical infrastructure and confidential data and information.
4. The distribution utility should have access to necessary operational and technical data to allow for the integration and planning of products, services, and technologies to maintain the integrity, safety, and reliability of the distribution system.
5. Owners of DER, including consumers, utilities, and third parties, should plan for the potential that evolving technical, safety, and regulatory requirements may result in future financial impacts.

## Transactional Issues

6. The costs and benefits of products, services, and technologies should be transparent, measurable, appropriately reflected in prices, and considered in relevant regulatory proceedings.
7. Rules and transparent processes should be developed for product, service, and technology deployment.
8. Rules and transparent enforcement processes should be established to create equitable opportunities for new products, services, and technologies; avoid market manipulation; and resolve related complaints.

## Consumer Education & Protection Issues

9. State commissions, consumer advocates, utilities, DER service providers, and other stakeholders should work to engage electric consumers to educate them with objective information in plain language regarding:
  - a) how the distribution system works, how it is priced, and how and why it is regulated;
  - b) the need, cost, time, and process for potential system upgrades to accommodate new services or resources;
  - c) how to evaluate the costs, benefits, and risks of DER options and services (advantages and disadvantages; energy usage attributes; pricing; tax implications; consumer return on investment; disposal costs; etc.);
  - d) the potential that prices, tariff structures, and technologies may change in ways that impact the costs, benefits, or operation of a DER option over its useful life;
  - e) the source and extent of DER service provider licensing and regulation, installer insurance and certification credentials, assumptions about cost savings, and the risks associated with potential requirements for consumer equipment upgrades;
  - f) their consumer rights, responsibilities, and remedies when purchasing or leasing products, services, and technologies, recognizing that they may be subject to state consumer protection laws and not traditional utility regulation;
  - g) how data products and services can help them better understand and manage their energy use and bills;
  - h) consumer energy data ownership, including disclosure; usage or sale; privacy; and security; and
  - i) public safety, physical security, and cybersecurity challenges.
10. Consumer protection rules and policies should be periodically reviewed and modified to establish and maintain necessary protections.
11. States should clearly delineate jurisdiction and coordinate among state commissions, state attorneys general, and other consumer protection entities to ensure that there are no gaps in enforcement of the laws and regulations that protect consumers.
12. Laws and regulations should provide a clear method for receiving and resolving consumer complaints, and transparent enforcement processes should be established.
13. State laws and rules should require any entity with access to consumer data and information to have publicly available written privacy policies to protect against unauthorized access, disclosure, or sale of consumer data and information.

14. The process for a consumer to grant or revoke access, disclosure, or sale of consumer data and information should be simple and clearly articulated.
15. Upon discovery of a breach or misuse of confidential consumer data and information (such as personally identifiable information or individual consumer usage data) or a compromise of a system where that data and information are held, consumers should be notified immediately.

## Jurisdictional Issues

16. States should retain their exclusive authority to determine the role and operation of the distribution utility systems within their state's current jurisdiction.
17. Policies related to the evolving distribution system should continue to provide utilities an opportunity to recover prudently-incurred costs.
18. To ensure safe, adequate, and reliable service at just and reasonable rates and to protect consumers, states should consider whether to exert regulatory oversight over third-party providers of products, services, and technologies.

## Safety Issues

19. Standards, procedures, and practices related to products, services, and technologies must ensure the safety of the public, first responders, and electric utility workers, and must protect utility and consumer assets.
20. Information should be provided to policymakers and other stakeholders about how products, services, and technologies may potentially impact the costs and operation of the distribution utility system, the regulatory structure, and public safety.

## Terminology

Participants define a few key terms used within the principles as follows:

- **Breach:** unauthorized access, disclosure, or sale of consumer data and information.
- **Department of Defense Facilities:** reference to the Department of Defense Facility Energy Program, which is designed to reduce energy costs and improve the energy security of fixed installations.
- **Distributed Energy Resources:** distributed resources – both dispatchable and non-dispatchable – including generation, energy efficiency, demand response, energy storage, and other technologies as developed.
- **Distributed Generation (DG):** non-centralized source of electricity generation generally interconnected to the distribution system and located at or near consumers' homes or businesses.
- **Integrated Grid:** a distribution grid on which new products and technologies are able to operate in an efficient, effective, and coordinated manner, and not adversely affect existing infrastructure.

## III. Conclusion

### Objective Met

Recognizing that the principles do not address all issues with respect to the expansive topic, the consensus achieved by participating state commissioners, consumer advocates, and utility representatives is significant nonetheless. Consistent with the stated objectives, participants developed a useful framework for considering and addressing policy issues pertaining to the evolving distribution system.

### Disclaimer

Please note that these principles are not intended to override any individual or collective policies or positions developed by state commissioners, consumer advocates, electric utility representatives, or by the National Association of Regulatory Utility Commissioners (NARUC), the National Association of State Utility Consumer Advocates (NASUCA), Edison Electric Institute (EEI), or any other organizations referenced herein. Instead, CCIF work products are meant only to complement such policies or positions and provide a framework for additional discussion and policy development.

### Acknowledgments

The CCIF Executive and Advisory Committees would like to acknowledge the valuable contributions of the following individuals and organizations:

- NARUC, NASUCA, and EEI, particularly the guidance of their respective leaders and the valuable input and hard work of their respective teams.
- All state commissioners, consumer advocates, and electric utility participants who worked tirelessly to draft and revise the CCIF principles, both during and after the summits in Phoenix, Arizona; Washington, DC; and Chicago, Illinois.
- All speakers, panelists, and attendees who participated in the November 2014 Kickoff Forum in San Francisco, where many of the issues addressed within this report were introduced.

### Future CCIF Initiatives

CCIF offers participants the ability to engage in constructive debate on important energy topics. It provides a forum for state commissioners, consumer advocates, and electric utility representatives to collectively develop sound energy policies that fully consider impacts on consumers and other stakeholders. CCIF is designed to be a continuing, long-term effort to facilitate such leadership by these core groups and to address a variety of important energy issues in a collaborative, proactive manner. Therefore, we urge all interested stakeholders to stay tuned for future CCIF initiatives and events, and we specifically **invite all NARUC and NASUCA Annual Meeting attendees to join us the afternoon of Saturday, November 7, 2015, in Austin, Texas** (more details at [www.CCIForum.com](http://www.CCIForum.com) in the coming months).

# APPENDIX

## Acknowledgment of 2015 Summit Participants

Due to the nature of the collaborative process and the extensive degree of participation, specific principles developed within the 2015 summit process should not be attributed to specific individuals or to the organizations that he or she represents. With that understanding, CCIF acknowledges the following individuals who participated in CCIF events focused on the topic of the evolving distribution system:

**Mr. Charles A. Acquard**  
National Association of State Utility  
Consumer Advocates (NASUCA)

**Mr. Guillermo Aleman**  
Florida Power & Light

**Hon. Bob Anthony**  
Oklahoma Corporation Commission

**Hon. Don M. Bailey**  
North Carolina Utilities Commission

**Ms. Shannon Maher Bañaga**  
Tampa Electric Company

**Mr. Bruce P. Barkley**  
Duke Energy

**Ms. Autumn Barnett**  
Vermont Department of Public Service

**Mr. Gregory L. Bernosky**  
Arizona Public Service

**Hon. Susan Bitter Smith**  
Arizona Corporation Commission

**Mr. Gregory A. Bollom**  
Madison Gas & Electric Company

**Ms. Paula M. Carmody**  
Maryland Office of People's Counsel

**Hon. Michael E. Champley**  
Hawaii Public Utilities Commission

**Ms. Susanna Chiu**  
PSEG

**Hon. Upendra Chivukula**  
New Jersey Board of Public Utilities

**Mr. Lawrence W. Cook**  
Kentucky Office of the Attorney General

**Ms. Laurie H. Duhan**  
Baltimore Gas & Electric Company

**Hon. Lisa Polak Edgar**  
Florida Public Service Commission

**Mr. Randolph Elliott**  
American Public Power Association (APPA)

**Mr. Tim Fagan**  
PSEG

**Hon. Joseph L. Fiordaliso**  
New Jersey Board of Public Utilities

**Hon. Elizabeth B. "Lib" Fleming**  
South Carolina Public Service Commission

**Hon. Joanne Dobby Fort**  
Public Service Commission of the  
District of Columbia

**Mr. Daniel E. Francis**  
American Electric Power

**Mr. Bryce Freeman**  
Wyoming Office of Consumer Advocate

**Ms. Linda Gervais**  
Avista Corporation

**Mr. Dan Halperin**  
Pacific Gas & Electric

**Ms. Rebecca Harsh Knox**  
Edison Electric Institute

**Mr. Ross C. Hemphill**  
Commonwealth Edison Company

**Hon. Sarah D. Hofmann**  
Vermont Public Service Board

**Hon. Mary-Anna Holden**  
New Jersey Board of Public Utilities

**Hon. John E. "Butch" Howard**  
South Carolina Public Service Commission

**Hon. Elizabeth (Libby) S. Jacobs**  
Iowa Utilities Board

**Mr. Ken Johnson**  
Puget Sound Energy

**Ms. Elin Swanson Katz**  
Connecticut Office of Consumer Counsel

**Mr. J.R. Kelly**  
Florida Office of Public Counsel

**Hon. Robert S. Kenney**  
Missouri Public Service Commission

**Mr. Thomas L. Kirkpatrick**  
American Electric Power

**Hon. Doug Little**  
Arizona Corporation Commission

**Hon. Ann McCabe**  
Illinois Commerce Commission

**Ms. Jaime McGovern**  
Citizens' Utility Board of Oregon

**Ms. Katrina McMurrian**  
Critical Consumer Issues Forum

**Hon. Phil Montgomery**  
Public Service Commission of Wisconsin

**Ms. Kristin Munsch**

Illinois Citizens Utility Board

**Hon. Chris Nelson**

South Dakota Public Utilities Commission

**Mr. Robert A. Nelson**

Montana Consumer Counsel

**Mr. Brian O’Hara**

National Association of Regulatory Utility Commissioners (NARUC)

**Mr. Steve Olea**

Arizona Corporation Commission

**Mr. Eddie Ortiz**

Edison Electric Institute

**Mr. D. Andrew Owens**

Entergy

**Mr. David K. Owens**

Edison Electric Institute

**Ms. Hilda Pinnix-Ragland**

Duke Energy Corporation

**Ms. Mary Ann Ralls**

National Rural Electric Cooperative Association (NRECA)

**Mr. James Bradford Ramsay**

National Association of Regulatory Utility Commissioners (NARUC)

**Mr. Christopher Raup**

Consolidated Edison Co. of New York

**Hon. Ann Rendahl**

Washington Utilities & Transportation Commission

**Mr. Robert Reuter**

Pepco Holdings, Inc.

**Mr. Dave Robertson**

Portland General Electric

**Mr. Mark R. Schuling**

Iowa Office of the Consumer Advocate

**Hon. Dianne Solomon**

New Jersey Board of Public Utilities

**Mr. David Springe**

Kansas Citizens’ Utility Ratepayer Board

**Ms. Elizabeth Stipnieks**

Edison Electric Institute

**Mr. A. David Stippler**

Indiana Office of Utility Consumer Counselor

**Mr. Richard S. Tempchin**

Edison Electric Institute

**Dr. Mark W. Toney**

TURN—The Utility Reform Network

**Hon. Betsy Wergin**

Minnesota Public Utilities Commission

**Hon. Greg R. White**

Michigan Public Service Commission

## Leadership

### Executive Committee



**Lisa Polak Edgar**  
*Florida Public Service Commissioner  
& NARUC President*



**Robert A. Nelson**  
*Montana Consumer Counsel  
& NASUCA President*



**David K. Owens**  
*EEL Executive Vice President of  
Business Operations & Regulatory Affairs*

### Advisory Committee



**Robert S. Kenney**  
*Chairman  
Missouri Public Service Commission*



**Betsy Wergin**  
*Vice Chair  
Minnesota Public Utilities Commission*



**Simon ffitich**  
*Sr. Asst. AG & Public Counsel Division Chief  
Washington State Attorney General's Office*



**Elin Swanson Katz**  
*Consumer Counsel  
Connecticut Office of Consumer Counsel*



**J. R. Kelly**  
*Public Counsel  
Florida Office of Public Counsel*



**Gregory Bollom**  
*Assistant Vice President—Energy Planning  
Madison Gas & Electric Company*



**Wayne Harbaugh**  
*Vice President of Pricing & Regulatory Services  
Baltimore Gas & Electric Company*



**Phillip R. May**  
*President & CEO  
Entergy Louisiana &  
Entergy Gulf States Louisiana*

## Executive Director



**Katrina McMurrian**

*Executive Director*

Critical Consumer Issues Forum (CCIF)

### Contact Information:

Office: 615.905.1375

Fax: 888.526.6883

Email: [katrina@CCIForum.com](mailto:katrina@CCIForum.com)

Web: [www.CCIForum.com](http://www.CCIForum.com)

Twitter: [@CCIForum](https://twitter.com/CCIForum)

A former Florida Public Service Commissioner (2006–2009), Katrina McMurrian draws upon extensive regulatory experience to organize and facilitate relevant policy forums and to advise an array of entities on key regulatory and policy issues in the energy arena. McMurrian currently serves as the Executive Director of the Critical Consumer Issues Forum (CCIF), a unique national forum in which state regulators, consumer advocates, and electric utilities—via a series of facilitated, interactive dialogues—engage in productive debate and develop consensus on key issues of importance to consumers and policymakers. McMurrian also serves as the Executive Director of the Nuclear Waste Strategy Coalition, an ad hoc organization representing the collective interests of member state utility regulators, consumer advocates, tribal governments, local governments, nuclear-generating utilities, utilities with shutdown reactors, and other public and private sector experts on nuclear waste policy matters.

McMurrian frequently interacts with Congressional offices; Administration officials with the Department of Energy (DOE); state and federal utility regulators; state and national consumer organizations; industry representatives; and numerous other public and private stakeholders on matters related to the work of the NWSC (nuclear waste policy) and the CCIF (grid modernization, distributed generation, etc.).

As a commissioner, McMurrian decided numerous cases involving Florida’s electricity, gas, communications, water, and wastewater providers; appeared before Congress; worked with other state and federal agencies; and participated on a number of influential national policy boards. She served on several National Association of Regulatory Utility Commissioners (NARUC) committees, including Electricity, Nuclear Issues (Vice Chair), Consumer Affairs, and Education & Research, as well as on collaboratives with the Federal Energy Regulatory Commission (FERC), including Demand Response (Co-Chair), Smart Grid, and Competitive Procurement. She also served on the Executive Committee of the NWSC, Advisory Council to the Electric Power Research Institute (EPRI) Board, EPRI Energy Efficiency/Smart Grid Group, Keystone Energy Board, Eastern Interconnect States Planning Council, and the Southeastern Association of Regulatory Utility Commissioners (SEARUC). Additionally, McMurrian Co-Chaired the 2009 NARUC/DOE National Electricity Delivery Forum.

A Northwest Florida native, McMurrian received a Bachelor’s degree in finance from Florida State University in 1994 and an MBA from FSU in 1998.



**CCIF**  
*Critical Consumer Issues Forum*

**For more information about CCIF or this report:**

Katrina J. McMurrian  
CCIF Executive Director  
(615) 905-1375  
Katrina@CCIForum.com  
[www.CCIForum.com](http://www.CCIForum.com)

