

DATE: June 4, 2013
STAFF: Tom Vosburg
Steve Catanach

AGENDA ITEM SUMMARY
FORT COLLINS CITY COUNCIL

12

SUBJECT

Second Reading of Ordinance No. 074, 2013, Amending the City Code to Authorize Administrative Adoption of Minor Rule Revisions, Clarifications, and Interconnection Project Standards.

EXECUTIVE SUMMARY

This Ordinance, unanimously adopted on First Reading on May 21, 2013, grants the Utilities Executive Director authority to approve temporary exemptions or technical modifications to the City's various electric utility regulations for the purpose of supporting City-managed special pilot projects, equipment testing or research partnerships.

This authority will not be extended to allow exemptions of such regulations and standards to on going operations or services provided to Utility customers not participating in testing or research projects.

STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on Second Reading.

ATTACHMENTS

1. First Reading Agenda Item Summary without attachments - May 21, 2013

DATE: May 7, 2013
STAFF: Tom Vosburg
Steve Catanach

AGENDA ITEM SUMMARY
FORT COLLINS CITY COUNCIL

15

SUBJECT

First Reading of Ordinance No. 074, 2013, Amending the City Code to Authorize Administrative Adoption of Minor Rule Revisions, Clarifications, and Interconnection Project Standards.

EXECUTIVE SUMMARY

This item grants the Utilities Executive Director authority to approve temporary exemptions or technical modifications to the City's various electric utility regulations for the purpose of supporting City-managed special pilot projects, equipment testing or research partnerships.

This authority will not be extended to allow exemptions of such regulations and standards to on going operations or services provided to Utility customers not participating in testing or research projects.

BACKGROUND / DISCUSSION

It is the City's established policy and practice to involve the Fort Collins Light and Power Utility in innovative research projects and partnerships relating to emerging electric grid technologies and management practices. The following Plan Fort Collins Principle and Policy statements directly speak to this practice:

Principle ENV 7: The City will pursue efforts to modernize the electric grid to provide a safe, reliable and secure grid, and to allow for integration of smart grid technologies.

Policy ENV 7.11 – Participate in Research, Development and Demonstrations: Remain at the forefront of emerging technologies and innovative solutions through research, development, and demonstration projects.

Past examples of these kinds of research projects include FortZED and the Department of Energy Renewable and Distributed Systems (RDSI) grant.

The Electricity utility industry in general is in the midst of significant change both operationally and how it operates as a business. Distributed generation such as solar PV and other customer changes on the fringe of the distributions system all have an effect on the distribution system. Participation in testing new technologies help the Utility understand and plan for possible future changes and thus directly supports the Fort Collins Light and Power Utility's core mission.

The City of Fort Collins has traditionally established aggressive goals for the Utility that require new and innovative practices that may not yet be widely adopted and thus are not well supported by conventional technologies. This has required the Utility to contribute to developing new innovative practices to achieve community goals. For example, in 1968 the City Council passed an ordinance requiring all new subdivision utility installations to be installed underground. At the time, mainstream methods for underground utility installation were not well developed and were expensive and difficult to implement. Fort Collins Light and Power engineers developed and patented a new design for a lightweight prefabricated modular fiberglass underground transformer vault that was far more practical and cost effective to use than the standard poured concrete vaults commonly used at the time. No such prefabricated fiberglass vaults were available on the market and the City's active involvement in developing the new product was critical to the success of the undergrounding program. Development of this equipment improved not only the City's utility operations but helped advance undergrounding within the electric utility industry.

The City's established policies and technical standards for operation of the electric utility are contained in Chapter 26, Article VI of the City Code and also in the Interconnection Standards for Generating Facilities (GF) Connected to the Fort Collins Distribution System. These policies and standards reflect best practices based on current grid management technologies.

In some cases, emerging “modernizing” grid management technologies are not yet directly accommodated by the City’s current standards. Not having some flexibility to temporarily adjust or allow exemptions to some standards could limit the City’s ability to more effectively participate in research partnerships, equipment testing, and demonstration projects. The RDSI project is one current example of a research partnership project where having this flexibility would be very beneficial. The City recently received additional grant funding from the DOE to include two additional demonstration projects as part of the overall grant. One project will demonstrate the use of new cybersecurity protection mechanisms for controlling microgrids; the other will evaluate better methods of load balancing the power feeds from Photovoltaic arrays.

One current example of an existing technical standard for which a temporary exemption should be granted is the current prohibition of islanding portions of the distribution system now contained in the City’s Interconnection Standards for Generation Facilities (GF) Connected to the Fort Collins Distribution System. This restriction inhibits the ability for the RDSI project team to most effectively operate the cybersecure microgrid demonstration project. This constraint can be removed if a temporary exemption to the prohibition of the practice of islanding now contained in the Interconnection Standards for Generation Facilities (GF) Connected to the Fort Collins Distribution System is allowed for the limited scope and duration of the project. While the City is confident that islanding operations can be appropriately tested within the context of the narrowly defined scope of the demonstration project, standards for islanding are not yet mature enough to be adopted for general on-going operations through-out the system.

City Code now provides no guidance regarding how the City may resolve these kinds of limitations to better carry out Policy ENV 7.11. This Ordinance is intended to provide that missing guidance and better align the Utilities operating standards with City policy. These provisions would grant the Utilities Executive Director the authority to authorize temporary exemptions to specific standards for the purpose of supporting City-managed research projects and would provide a means to assess emerging technologies and practices without committing to integrate such new practices into the Utilities ordinary operations. This will protect the Utilities customers’ interests, while providing the City the means to more effectively implement Policy ENV 7.11.

FINANCIAL / ECONOMIC IMPACTS

The City’s policy of involving the Light and Power Utility in research partnerships supports local economic development by helping establish Colorado State University and the Fort Collins community as a center of innovation in the clean energy sector as well as by helping bring grant funding to the community. The City’s management of the RDSI project alone brought over \$11,000,000 of Department of Energy grant funding into the Fort Collins community. There is clearly the potential for future partnership research projects to bring additional research funding to the community.

ENVIRONMENTAL IMPACTS

One objective of modernizing the electric grid is to better support integration and use of renewable energy resources such as wind and solar power. Enabling the City’s participation in research partnerships in this area may result in improvements in technologies that help further this objective.

STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on First Reading.

ORDINANCE NO. 074, 2013
OF THE COUNCIL OF THE CITY OF FORT COLLINS
AMENDING THE CODE OF THE CITY OF FORT COLLINS TO
AUTHORIZE ADMINISTRATIVE ADOPTION OF MINOR RULE REVISIONS,
CLARIFICATIONS, AND INTERCONNECTION PROJECT STANDARDS

WHEREAS, the City Charter and City Code require that rule and regulation changes be considered and adopted by the City Council prior to becoming effective; and

WHEREAS, the effective provision of electric utility service and the application of the rules and regulations affecting service would be expedited by amending the City Code to authorize the Utilities Executive Director to approve minor, non-technical rule and regulation revisions to clarify existing standards and improve conformity with best engineering practices; and

WHEREAS, coordination of improvements to the City's electric utility system would be supported by amending the City Code to authorize the Utilities Executive Director to adopt standards for special research, equipment testing and pilot projects that are under the direction and control of the Fort Collins Utilities; and

WHEREAS, the City Council has determined that these proposed amendments to the City Code are in the best interests of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS that Section 26-463 of the Code of the City of Fort Collins is hereby amended to read as follows:

Sec. 26-463. Electric rates; general service rules and regulations and interconnection standards.

(a) The rules, regulations and Interconnection Standards for Generating Facilities Connected to the Fort Collins Distribution System applicable to electric service and persons receiving electric service from the City shall be such rules, regulations and Interconnection Standards for Generating Facilities Connected to the Fort Collins Distribution System as are adopted by the Utilities Executive Director and approved by ordinance of the City Council.

(b) Upon such adoption and approval, all such rules and regulations shall be in full force and effect and shall apply to any person, corporation or other entity receiving electric service from the City.

(c) The Utilities Executive Director may adopt minor additions, revisions and corrections to the electric service rules, regulations and Interconnection Standards for Generating Facilities Connected to the Fort Collins Distribution System as may, in the judgment of the Utilities Executive Director, be necessary to better conform to

good engineering and/or construction standards and practice or to clarify a particular standard. The Utilities Executive Director shall approve only those proposed technical revisions that:

- (1) are consistent with all existing policies relevant to the revisions;
- (2) do not result in any significant additional cost to persons affected by the revision; and
- (3) do not materially alter the standard or level of service to be provided.

Upon adoption of any technical revisions pursuant to this Subsection, the Utilities Executive Director shall provide to the City Clerk documentation of such technical revisions specifying the date upon which they shall become effective, and shall maintain said documentation on file in the permanent records of the City Clerk and Utility Services and shall make the same available for public inspection.

(d) The Utilities Executive Director may approve the limited suspension of the electric service rules, regulations and Interconnection Standards for Generating Facilities Connected to the Fort Collins Distribution System for the purpose of supporting special research, equipment testing or pilot projects that are under the direction and control of the Fort Collins Utilities. The Utilities Executive Director shall approve limited suspension only for projects that:

- (1) are temporary in nature and will be discontinued at the conclusion of a defined Project Execution Plan which clearly defines project timelines;
- (2) are integral and necessary to achieve the research, testing or demonstration objectives of the project;
- (3) are limited in their potential effect to specifically identified facilities and customers that are informed and consenting participants in the project and do not have the potential to impact the overall distribution system or ordinary utility customers;
- (4) reflect appropriate due diligence and good engineering practices; and
- (5) do not materially alter the standard or level of service to be provided.

Project managers proposing limited suspension for a project must submit a written request to the Utilities Executive Director together with a project execution plan and a risk management plan.

The Utilities Executive Director may revoke the limited suspension and require that system components and operations be brought into compliance with the standards at any time during the course of the project.

Introduced, considered favorably on first reading, and ordered published this 21st day of May, A.D. 2013, and to be presented for final passage on the 4th day of June, A.D. 2013.

Mayor

ATTEST:

City Clerk

Passed and adopted on final reading on the 4th day of June, A.D. 2013.

Mayor

ATTEST:

City Clerk