# Amendment 37 Renewable Energy Requirement Legislative Council Staff Responses to Public Comments

The revisions requested by interested persons are provided below in the following format:

ALL CAPS = Proposed new language

Strike Type = Proposed deletions

Standard Type = Current language

All page and line references are to the Final Draft version

BACKGROUND SECTION
1. Responder: Manolo Gonzalez-Estay, Renewable Energy Initiative
Suggested change: Page 1, line 13:
Colorado is served by 60 utilities that generate electricity using primarily coal, natural gas, and SMALL AMOUNTS OF hydroelectric power.
<b>Staff comment:</b> Agree in part. While coal and natural gas are the primary sources of fuel (77 percent and 20 percent respectively), hydroelectric power accounts for 3 percent of energy generated in Colorado.
Revised staff language:
Colorado is served by 60 utilities that generate electricity using primarily coal AND natural gas, and SOME hydroelectric power.
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2. Responder: Andrew J. Colosimo, Colorado Springs Utilities
Suggested change: Page 2, lines 6-11:
<i>Financial incentives.</i> Under the proposal, utility customers may earn a rebate for installing solar electric generation equipment on their property. Any electricity generated from the solar equipment in excess of the customer's annual use may be sold to the utility. In addition, for-profit utilities may earn extra profit and bonuses if their investment in renewable energy technologies reduces the retail cost of electricity to their customers, BUT MUNICIPAL UTILITIES ARE PROHIBITED FROM EARNING EXTRA PROFIT FROM THEIR CUSTOMERS.

Basis for suggested change: When discussing financial incentives to utilities it needs to be qualified that not all utilities can receive these incentives. Municipal utilities are prohibited from earning extra profit from their customers.

**Staff comment:** Disagree. Under the proposal, qualifying utilities that are subject to rate regulation (i.e., investor-owned for-profit utilities) are allowed to earn extra profit and bonuses. Staff believes that by using the term "for-profit utilities," it is understood that municipal and rural electric cooperatives are excluded.

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### 3. **Responder:** Staff

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10 **Suggested change:** Page 2, amend lines 16-22 to add more detail about the "self-certification" option: 11

Procedure for exemption and inclusion. Affected utilities subject to the proposal may hold elections to exempt themselves from the renewable energy requirement. Similarly, utilities not subject to the requirement may hold elections to be included. At least 25 percent of the utility's customers must vote on the issue of exemption or inclusion, with a majority vote required for passage. In addition, a municipal utility or a rural electric cooperative may develop a similar renewable energy requirement and be exempted from this proposal. To QUALIFY, THE UTILITY MUST: 1) USE AT LEAST ONE OF THE ELIGIBLE RENEWABLE ENERGY SOURCES, 2) FOLLOW THE SAME SCHEDULE FOR ELECTRICITY GENERATION FROM RENEWABLE SOURCES, AND 3) OFFER AN OPTIONAL PRICING PROGRAM THAT ALLOWS CUSTOMERS TO SUPPORT EMERGING RENEWABLE TECHNOLOGIES. UTILITIES THAT CHOOSE THIS OPTION ARE NOT REQUIRED TO GENERATE ELECTRICITY FROM SOLAR SOURCES.

**Basis for suggested change:** Detail about the procedure for municipal and rural electric cooperatives to exempt themselves from the proposal's renewable energy requirement was not provided in the final draft.

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#### 4. **Responder:** David Lock, Colorado Association of Municipal Utilities

29 **Suggested change:** Page 2, lines 23-26:

> Role of the Colorado Public Utilities Commission. For purposes of implementing the new renewable energy requirements, the Public Utilities Commission will regulate some utilities it currently does not. This REQUIREMENT IS IN CONFLICT WITH ARTICLE V SECTION 35 AND ARTICLE XXV OF THE COLORADO STATE CONSTITUTION. The Commission must adopt rules to implement this proposal.

1 2	<b>Basis for suggested change:</b> The language should point out that portions of the initiative conflict with Colorado's Constitution.
3 4	<b>Staff comment:</b> Disagree. Whether this proposal conflicts with the Colorado Constitution is for the courts to determine.
5	************
6	5. Responder: Manolo Gonzalez-Estay, Renewable Energy Initiative
7	Suggested change: Page 2, lines 23-26:
8 9 10 11	<b>Role of the Colorado Public Utilities Commission.</b> For purposes of implementing the new renewable energy requirements, the Public Utilities Commission will regulate OVERSEE some utilities it currently does not. The Initiative does not grant any New Authority to the Commission, However, the Commission must adopt rules to implement this proposal.
13 14 15 16	<b>Staff comment:</b> Agree in part. The PUC is given the authority to monitor and enforce compliance with the provisions of this proposal. The term "regulate" implies a similar level of oversight (such as rate regulation) to what the PUC currently does for investor-owned utilities. Under the proposal, the PUC must ensure that all utilities serving over 40,000 customers are meeting the renewable energy requirement.
18	Revised staff language:
19 20 21 22 23 24 25	Role of the Colorado Public Utilities Commission. The Public Utilities Commission will Commission must adopt rules to implement this proposal. The Commission will monitor and enforce the compliance of those utilities required to meet the new renewable energy requirements. For purposes of implementing the new renewable energy requirements, the Public Utilities Commission will regulate some utilities it currently does not. The Commission must adopt rules to implement this proposal.
26	************
27	ARGUMENTS FOR
28	<b>6. Responder:</b> Andrew J. Colosimo, Colorado Springs Utilities
29	Suggested change: Page 2, lines 28-33:
30 31 32	1) Using renewable energy makes economic sense. Conventional fuels are finite, while renewable energy sources are unlimited. As time passes, supplies of coal and natural gas will diminish and these resources will become more expensive. In contrast

the price of renewable energy will decrease as technologies improve. Generating a percentage of electricity from renewable resources contributes to energy diversity and reduces Colorado's vulnerability to fluctuations in the price or supply of fuel.

**Basis for suggested change:** This is a misleading statement. The startup costs of renewable energy are higher than conventional fuels. Also, since renewable energy is intermittent in nature, investing in something that is not constant and, in most cases, dispatchable, it is arguable that it does not make economic sense.

**Staff comment:** Disagree. Immediate or long-term economic benefits may arise from the use of renewable resources. According to the U.S. Department of Energy: "Diversifying energy portfolios with wind energy also makes good economic sense. In 1979, wind energy cost 40 cents per kilowatt-hour. In 2004, the cost per kilowatt-hour dropped to between 3 and 4.5 cents per kilowatt-hour, making wind energy a competitive contender for electricity generation." For modern natural gas plants, natural gas prices are averaging 4.6 cents per kilowatt-hour, but have been as high as 7.8 cents per kilowatt-hour as recently as 2003.

- 7. **Responder:** David Lock, Colorado Association of Municipal Utilities and Andrew J. Colosimo, Colorado Springs Utilities
- **Suggested change:** Page 2, lines 28-33:

- 1) Using renewable energy makes economic sense. Conventional fuels are finite, while renewable energy sources are unlimited. As time passes, supplies of coal and natural gas will diminish and these resources will become more expensive. In contrast, the price of renewable energy will decrease as technologies improve. Generating a percentage of electricity from renewable resources contributes to energy diversity and reduces Colorado's vulnerability to fluctuations in the price or supply of fuel.
- **Basis for suggested change:** There is no basis for either of these statements. This is an assumption that has not been proven. At the very least, it needs to be qualified as such.

**Staff comment:** Agree in part. This argument intends to make the point that supplies of conventional fuels are finite and will likely become increasingly expensive as remaining reserves are consumed. Commodity prices increase as supplies diminish, and decrease as production technologies become more efficient. Historically, prices of conventional fuels have only risen in the long run. In contrast, because there is no fuel cost, the price of renewable energy can only decrease due to technological innovation.

1	<b>Revised staff language:</b> 1) Using renewable energy makes economic sense.
2	Conventional fuels are finite, while renewable energy sources are unlimited. As time
3	passes, supplies of coal and natural gas will diminish and these resources will LIKELY
4	become more expensive. In contrast, the price of renewable energy will decrease as
5	technologies improve. Generating a percentage of electricity from renewable resources
6	contributes to energy diversity and reduces Colorado's vulnerability to fluctuations in the
7	price or supply of fuel.
/	price of supply of fuel.
8	************
9	<b>8. Responder:</b> Manolo Gonzalez-Estay, Renewable Energy Initiative
10	Suggested change: Page 2, lines 28-33:
11	1) Using renewable energy makes economic sense. Conventional fuels are finite,
12	while renewable energy sources are unlimited. As time passes, supplies of coal and
13	ESPECIALLY natural gas will diminish, and these resources will become more expensive.
14	THIS IS DEMONSTRATED BY THE FACT THAT XCEL HAS RAISED NATURAL GAS RATES IN
15	COLORADO AN A VERAGE OF 72 PERCENT LAST WINTER AND PLANS ANOTHER 15 PERCENT
16	TO 20 PERCENT INCREASE THIS FALL. In contrast, the price of renewable energy will
17	CONTINUE TO decrease as technologies improve. Generating a percentage of electricity
18	from renewable resources contributes to energy diversity and reduces Colorado's
19	vulnerability to fluctuations in the price or supply of fuel. According to XCEL
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	TESTIMONY IN FRONT OF THE FEDERAL ENERGY REGULATORY COMMISSION, THE WIND
21	FARM IN LAMAR, COLORADO SAVED COLORADANS \$4.6 MILLION IN ITS FIRST YEAR.
22	Basis for suggested change: A source addressing the proposed electricity rate
23	increases by Xcel was provided. (Source: Denver Post 8-6-04, "Heat bill hike is chilling
24	news.")
25	Staff agreement. Discours Adding the world "FSDFSVVVVII is an arrange agreement.
	<b>Staff comment:</b> Disagree. Adding the word "ESPECIALLY" is an unnecessary
26	qualifier. The argument intends to point out that fixed supplies of conventional fuels
27	generally will diminish over time as they are consumed and will become increasingly
28	expensive. Detail about the proposed natural gas hikes is not necessary. The existing
29	language in Argument #1 is concise and sufficient.
30	************
31	9. Responder: Manolo Gonzalez-Estay, Renewable Energy Initiative
32	Suggested change: Page 3, lines 1-7:
33	2) Electricity generated from renewable sources has lesser LESS harmful
34	environmental impacts than electricity generated from conventional fuels. The
35	environmental benefits of using renewable energy include cleaner air and water, more
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efficient use of water, and less damage to the landscape. Both coal and natural gas-fired power plants emit significant amounts of air pollutants. According to the BUSH ADMINISTRATION'S Environmental Protection Agency calculations, generating 10 percent of electricity from renewable sources is roughly equal to eliminating the air emissions from 600,000 cars annually.

**Staff comment:** Agree in part. Staff agrees with the suggestion to substitute "LESS" for "LESSER." Staff also agrees that the EPA should be identified as a federal agency.

**Revised staff language:** 2) Electricity generated from renewable sources has lesser LESS harmful environmental impacts than electricity generated from conventional fuels. The environmental benefits of using renewable energy include cleaner air and water, more efficient use of water, and less damage to the landscape. Both coal and natural gas-fired power plants emit significant amounts of air pollutants. According to THE FEDERAL Environmental Protection Agency calculations, generating 10 percent of electricity from renewable sources is roughly equal to eliminating the air emissions from 600,000 cars annually.

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# **10. Responder:** Andrew J. Colosimo, Colorado Springs Utilities

# **Suggested change:** Page 3, lines 1-7:

2) Electricity generated from renewable sources has lesser harmful environmental impacts than electricity generated from conventional fuels. The environmental benefits of using renewable energy include cleaner air and water, more efficient use of water, and less damage to the landscape. Both coal and natural gas-fired power plants emit significant amounts of air pollutants EMISSIONS. According to Environmental Protection Agency calculations, generating 10 percent of electricity from renewable sources is roughly equal to eliminating the air emissions from 600,000 cars annually.

Basis for suggested change: When suggesting that conventional power plants emit significant amounts of "air pollutants," voters need to be educated that not all emissions from power plants are pollutants. It should be noted that the EPA has established National Ambient Air Quality Standards (NAAQS) that are health-based standards. The statement "both coal and natural-gas fired power plants emit significant amounts of air pollutants" unfairly implies that significant amounts of air pollution equate to poor air quality, which is not necessarily true. The comparison in the argument to vehicles has no relationship to power plants. The primary pollutant affecting metro areas is carbon monoxide from vehicles, not power plants. A more balanced comparison would be to demonstrate the amount of pollution reduced from fossil fuel generation as a result of adding additional renewable resources.

**Staff comment:** Agree in part. The argument is stating that many emissions from power plants are pollutants. Adding a statement that other power plant emissions are not pollutants is not necessary. Air pollutants emitted by Colorado's power plants are tracked by the Environmental Protection Agency. Citing the EPA comparison helps the reader understand the scale of potential emission reductions from the use of renewable resources.

# Revised staff language:

- 2) Electricity generated from renewable sources has lesser harmful environmental impacts than electricity generated from conventional fuels. The environmental benefits of using renewable energy include cleaner air and water, more efficient use of water, and less damage to the landscape. Both coal and natural gas-fired power plants emit significant amounts of air pollutants. According to THE FEDERAL Environmental Protection Agency calculations, generating 10 percent of electricity from renewable sources is roughly equal to eliminating the air CARBON DIOXIDE emissions from 600,000 cars annually.
- - 11. **Responder:** David Lock, Colorado Association of Municipal Utilities and Andrew J. Colosimo, Colorado Springs Utilities
- **Suggested change:** On Page 3, lines 8-12:
  - 3) Using a variety of resources to meet Colorado's increasing electricity needs will improve the stability and security of Colorado's electricity supply. Increasing Colorado's use of renewable energy will reduce its dependence on conventional fuels. The state must prepare for the future by requiring a percentage of its electricity to be generated from renewable resources.
  - **Basis for suggested change:** This statement is not based in fact and does not take into account the intermittent nature of renewable energy, especially when wind is the major source of power. Wind fluctuates from hour to hour and could not lead to a more stable and secure electricity grid. This jeopardizes our ability to ensure reliable sources of electricity because, at best, the intermittent nature of wind only provides a 40 percent capacity factor.
  - **Staff comment:** Disagree. Diversification of resources will contribute to the stability and security of the electricity supply by providing more options for generation. Xcel Energy makes this point in its 2003 Environmental Report to Our Community: "To help manage fuel cost, environmental impact and supply availability risk for our customers, our facilities use a variety of fuel sources including coal, natural gas, nuclear fuel, water, oil, refuse, wind, sun and biomass."

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2	12. Responder: Andrew J. Colosimo, Colorado Springs Utilities
3	Suggested change: Page 3, lines 8-12:
4	3) Using a variety of resources to meet Colorado's increasing electricity needs
5	will improve the stability and security of Colorado's electricity supply. Increasing
6	Colorado's use of renewable energy will reduce its dependence on conventional fuels.
7	The state must prepare for the future by requiring a percentage of its electricity to be
8	generated from renewable resources.
9	Basis for suggested change: It is not accurate to suggest that increasing use of
10	renewable energy will reduce dependence on conventional fuels. The initiative may force
11	utilities to install new conventional supply-side technologies to meet electric supply needs
12	that cannot be satisfied by renewable energy, therefore increasing the costs of future
13	supplies. Fossil fuels will still be required to back up the intermittent nature of most renewable sources. Mandated reserve margins require utilities to back up renewable
14 15	energy with conventional fuels. In most cases renewable energy will not offset
16	conventional sources of energy just duplicate it.
10	conventional sources of energy just duplicate it.
17	Staff comment: Disagree. The proponents are arguing that, to the extent
18	electricity is generated from renewable resources, it will offset the need to produce
19	electricity from conventional fuels. Also, staff is not aware of any renewable energy
20	facility in the United States that has required the construction of back up generation
21	capacity.
22	************
23	13. Responder: Manolo Gonzalez-Estay, Renewable Energy Initiative
24	Suggested change: Page 3, lines 8-12:
25	3) Using a variety of resources to meet Colorado's increasing electricity needs
26	will improve the stability and security of Colorado's electricity supply. Increasing
27	Colorado's use of renewable energy will reduce its dependence on conventional FOSSIL
28	fuels. Sixty percent of the world's natural gas comes from Russia, Iran,
29	Qatar, and Saudi Arabia. The U.S. currently imports $50\mathrm{percent}$ of its natural
30	Gas, but according to the DOE net imports will rise $100\text{percent}$ between $2000$
31	AND 2020. The state must prepare for the future by requiring a percentage of its
32	electricity to be generated from renewable resources.
33	Basis for suggested change: A source documenting one of the suggested
34	changes was provided. (Source: The James A. Baker III Public Policy Institute, Rice
35	University; Fortune Magazine 8-23-04)

1 2	<b>Staff comment:</b> Disagree. In order to simplify the language of the ballot analysis, and for consistency, staff decided to refer to fossil fuels as "conventional fuels."
3	Staff also disagrees with the suggestion to insert an explanation of sources and
4	projections of U.S. import levels of natural gas. The article referenced addresses
5	potential future importation of liquified natural gas from various regions of the world and
6	does not appear to apply to this measure. In addition, according to the Energy
7	Information Administration in the U.S. Department of Energy, the U.S. currently imports
8	15 percent of its natural gas.
0	13 percent of its natural gas.
9	************
10	14. Responder: Andrew J. Colosimo, Colorado Springs Utilities
11	Suggested change: Page 3, lines 13-18:
12	4) Renewable energy facilities, typically located in rural areas, boost rural
13	economies. The construction and maintenance of renewable energy facilities will create
14	jobs in rural Colorado. Some farmers and ranchers will be able to tap into a new source
15	of income by using agricultural waste to generate electricity, and by leasing their land for
16	wind facilities.
17	Basis for suggested change: The language makes it seem like all farmers and
18 19	ranchers in rural Colorado will be able to lease their land for wind farms when in fact only a small fraction will be able to participate.
20	Staff comment: Agree.
21	************
22	15. Responder: Manolo Gonzalez-Estay, Renewable Energy Initiative
23	Suggested change: Page 3, lines 13-18:
24	4) Renewable energy facilities, typically located in rural areas, boost rural
25	economies. The construction and maintenance of renewable energy facilities will create
26	jobs in rural Colorado. Farmers and ranchers will be able to tap into a new source of
27	income by using agricultural waste to generate electricity, and by leasing their land for
28	wind facilities. In addition, renewable energy facilities provide tax revenues that can be
29	used by counties LOCAL GOVERNMENTS to pay for local services SUCH AS SCHOOLS AND
30	HOSPITALS.
31	Basis for suggested change: A source documenting the suggested change was
32	provided. [Source: Lamar Daily News 10-29-03; \$764,000/yr in new county revenue,
33	\$917,000/yr for RE-2 schools, \$189,000 to the Prowers Medical Center.]

**Staff comment:** Agree. According to the U.S. Department of Energy, property tax payments from wind projects "provide much-needed revenue to rural communities for building new schools, roads, bridges and other community infrastructure. Property tax payments of 1 percent of the assessed value of a wind project equal approximately \$10,000 per megawatt for rural communities each year."

## ARGUMENTS AGAINST

**16. Responder:** Kent Singer, Colorado Rural Electric Association (CREA) and Tri-State Generation & Transmission Association (Tri-State)

**Suggested change:** Page 3, lines 20-27:

1) ELECTRICITY GENERATED FROM RENEWABLE RESOURCES IS OFTENTIMES MORE EXPENSIVE THAN ELECTRICITY GENERATED FROM CONVENTIONAL FUELS. Colorado utilities with over 40,000 customers will be required to generate electricity from renewable resources, regardless of cost. Currently, utilities generate electricity using the least expensive fuel source. Electricity generated from renewable resources is oftentimes more expensive than electricity generated from conventional fuels. For example, the proposal requires at least 4 percent of renewable energy to come from solar sources, the most expensive renewable energy source. The proposal also prohibits utilities from counting electricity generated from large hydroelectric projects that are already in place toward the new requirement.

**Basis for suggested change:** The current first sentence in Argument #1 does not immediately make the cost argument, but instead restates the primary objective of the measure (until the last phrase "regardless of cost"). The main thrust of the argument is more immediate if the third sentence in this paragraph is moved to the first sentence. This is consistent with the style of the first "Argument For," which immediately states a reason to support the measure. We also would like to see the word "oftentimes" deleted.

**Staff comment:** Agree in part. Moving the third sentence to the first sentence strengthens the argument. The word "oftentimes" was not deleted since renewable resources are not always more expensive than conventional fuels (Sources: Colorado Public Utility Commission (PUC) Decision No. C01-295; June 4, 2004 Testimony of James Hill, Xcel Energy, before the PUC regarding the Application of Public Service Company of Colorado for Approval of its 2003 Least-Cost Resource Plan; Direct Testimony of Ronald J. Darnell, Xcel Energy, before the Federal Energy Regulatory Commission).

# Revised staff language:

1) ELECTRICITY GENERATED FROM RENEWABLE RESOURCES IS OFTENTIMES MORE EXPENSIVE THAN ELECTRICITY GENERATED FROM CONVENTIONAL FUELS. Colorado utilities with over 40,000 customers will be required to generate electricity from renewable resources, regardless of cost. Currently, utilities generate electricity using the least expensive fuel source. Electricity generated from renewable resources is oftentimes more expensive than electricity generated from conventional fuels. For example, The proposal requires at least 4 percent of renewable energy to come from solar sources, the most expensive renewable energy source. The proposal also prohibits utilities from counting electricity generated from large hydroelectric projects that are already in place toward the new requirement.

17. **Responder:** Manolo Gonzalez-Estay, Renewable Energy Initiative

**Suggested change:** Page 3, lines 20-27:

1) Colorado utilities with over 40,000 customers will be required to generate electricity from renewable resources, regardless of cost. Currently, utilities generate electricity using the least expensive fuel source. Electricity generated from renewable resources is oftentimes more expensive than electricity generated from conventional fuels. For example, the proposal requires at least 4 percent of renewable energy to come from solar sources, the most expensive renewable energy source. The proposal also prohibits utilities from counting electricity generated from large hydroelectric projects that are already in place toward the new requirement.

**Basis for suggested change:** The second sentence is inaccurate as wind and solar have zero fuel costs. The fourth sentence is inaccurate because technologies such as hydrogen fuel cells, wave and tidal power, and some hydroelectric are more expensive than solar.

**Staff comment:** Agree in part. Wind and solar have zero fuel costs, but other costs include start-up and maintenance costs. Solar energy is the most expensive renewable resource defined in the initiative, but may not be as expensive as other renewable resources such as hydrogen fuel cells, wave and tidal power, and some hydroelectric power.

# Revised staff language:

1) Colorado utilities with over 40,000 customers will be required to generate electricity from renewable resources, regardless of cost. Currently, utilities generate electricity using the least expensive fuel source. Electricity generated from renewable resources is oftentimes more expensive than electricity generated from conventional

- fuels. For example, the proposal requires at least 4 percent of renewable energy to come
- 2 from solar sources, ONE OF the most expensive renewable energy sources. The proposal
- 3 also prohibits utilities from counting electricity generated from large hydroelectric
- 4 projects that are already in place toward the new requirement.

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6 **18. Responder:** David Lock, Colorado Association of Municipal Utilities; Kent Singer, Colorado Rural Electric Association (CREA) and Tri-State Generation & Transmission Association (Tri-State); Andrew J. Colosimo, Colorado Springs Utilities

# **Suggested change:** Page 3, lines 28-33:

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2) Consumers may WILL pay more for electricity under this proposal. Utilities may WILL have to pass additional costs on to consumers, such as those for building or acquiring more transmission lines. While the proposal caps the amount that an average residential electric bill can increase as a result of the renewable energy requirement, it provides no such cap for non-residential customers such as business, industrial, government, or wholesale. Therefore, Non-Residential Customers will shoulder A DISPROPORTIONATE BURDEN OF THE INCREASED COSTS TO COMPLY WITH THE INITIATIVE.

# **Basis for suggested change:**

- 20 Mr. Lock: Additional costs will be passed on to consumers. It should also be pointed
- 21 out that non-residential customers will shoulder a disproportionate burden of the
- increased costs to comply with the initiative.
- 23 Mr. Singer: The "Argument For" makes the unconditional statement that using
- renewable energy "makes economic sense," conversely, the "Argument Against" should
- use the unconditional word "will" instead of "may."
- 26 **Mr. Colosimo**: The arguments against the initiative are not as strong as the arguments
- in support. The use of "may" in these instances is incorrect. Consumers will pay more
- for energy under this proposal. An increase of 50 cents in the residential bill is an
- 29 increase. Colorado Springs Utilities will have to pass additional costs on to the non-
- residential customers there is no other option than to pass the costs on to the
- 31 consumers. The 50-cent cap in essence creates a situation where non-residential rate
- 32 classes help subsidize renewable resources that may not even be built in Colorado. The
- initiative creates a situation where companies can use a federal tax credit (PTC) to build
- renewable in other states which we (our ratepayers) may have to purchase in the form
- of renewable energy credits in order to meet the standard.

**Staff comment:** Agree in part. Studies and expert opinions conflict on the issue of additional costs associated with renewable energy. Some opponents believe additional costs associated with renewable resources are certain, while advocates of renewable energy believe there may be cost savings. Changes in costs will depend upon various factors, so it is not necessarily true that all consumers will pay more for renewable energy (see Estimate of Fiscal Impact). In reference to the last sentence of the suggested change, current law addresses electric rates in Section 40-3-102, C.R.S., which states that the PUC must prevent unjust discrimination and extortions in rates, charges, and tariffs of public utilities. The PUC is also obligated, under Section 40-3-106, C.R.S., to ensure that rates are reasonable (i.e., no public utility may establish unreasonable difference in rates, charges...either between localities or between any class of service.)

# Revised staff language:

- 2) Consumers may pay more for electricity under this proposal. Utilities may have to WILL pass ANY additional costs on to consumers, such as those for building or acquiring more transmission lines.
- - 19. **Responder:** Manolo Gonzalez-Estay, Renewable Energy Initiative
- Suggested change: Page 3, lines 28-33:
  - 2) Consumers may pay more for electricity under this proposal. Utilities may have to pass additional costs on to consumers, such as those for building or acquiring more transmission lines. While the proposal caps the amount that an average residential electric bill can increase as a result of the renewable energy requirement, it provides no such cap for non-residential customers such as business, industrial, government, or wholesale.
  - **Basis for suggested change:** The first sentence is not true. In 2001 the PUC ruling determined that wind energy would likely lower the cost of electricity and ordered Xcel to build the 162MW Lamar wind farm. At Xcel's wind farm in Lamar, transmission is included in the per kwh cost. (Source: PUC).
  - In regards to the last sentence, this is not legal. First, section (G) of the ballot language is RETAIL RATE IMPACT RULE, not residential rate impact rule. The term "residential" is meant to be a proxy for all rate classes. This was done because according to the PUC and case law, it is against the law to discriminate between customer classes. Therefore, this alleged cost shift cannot occur. (Section 40-3-102, C.R.S. and Section 40-3-106, C. R.S.).
- Staff comment: Disagree. While the PUC determined that the Lamar wind farm would likely lower the cost of electricity, this is one instance. The assessment of costs

1 2 3	associated with renewable resources is still being debated on a case-by-case basis. In addition, the final sentence is simply stating that while the language of the measure caps residential electric bills, other customer classes are not addressed in the proposal.
4	*************
5	20. Responder: Manolo Gonzalez-Estay, Renewable Energy Initiative
6 7	<b>Suggested change:</b> Page 4, lines 1-5 [the proponents did not specify what their suggested change to this argument is]:
8 9 10 11 12	3) Colorado requires a continual and reliable means of energy production. A certain amount of electricity must be available at all times, and a certain amount must be maintained in reserve. Renewable energy, especially wind and solar resources, are intermittent and may not be available when needed. This could cause problems during peak energy demand periods or in emergencies.
13 14 15 16 17	<b>Basis for suggested change:</b> To make this claim, the opponents must show that the renewable energy standard is counted towards capacity. The opponents must show an example, somewhere in the country where fossil fuels are used to back up wind. According to the U.S. Department of Energy, when wind is below 20 percent of the grid it does not require back up.
18 19 20	<b>Staff comment:</b> Disagree. The argument is stating that wind and solar renewable energy are intermittent sources of energy and therefore do not provide a constant source of energy.
21	************
22 23	21. Responder: Kent Singer, Colorado Rural Electric Association (CREA) and Tri-State Generation & Transmission Association (Tri-State)
24	Suggested change: Page 4, lines 6-9:
25 26 27 28	4) The use of renewable resources should be a choice not a mandate. Colorado utilities are already using renewable energy resources when they are cost-effective. Further, several MOST utilities have programs that give customers the option to purchase all or a share of their electricity from renewable sources.
29	Staff comment: Agree.
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1	<b>22. Responder:</b> Manolo Gonzalez-Estay, Renewable Energy Initiative
2	Suggested change: Page 4, lines 6-9:
3 4 5 6	4) The use of renewable resources should be a choice not a mandate. Colorado utilities are already using renewable energy resources when they are cost-effective. Further, several utilities have programs that give customers the option to purchase all or a share of their electricity from renewable sources.
7 8	<b>Basis for suggested change:</b> The Colorado Public Utility Commission mandated the development of the Lamar wind farm over objections from Xcel.
9 10	<b>Staff comment:</b> Disagree. The opponents are stating that they are opposed to government mandates.
11	*************
12	ESTIMATE OF FISCAL IMPACT
13	23. Responder: Andrew J. Colosimo, Colorado Springs Utilities
14	Suggested change: Page 4, lines 11-16:
15 16 17 18 19 20 21	State impact. The renewable energy requirement will be administered by the Colorado Public Utilities Commission. Average annual administrative costs to the Commission are estimated at roughly \$60,000, with the potential for an additional one-time start-up cost of up to \$80,000. These costs will be covered by fees charged to affected utilities. In addition, to the extent that this proposal changes retail electricity rates BECAUSE STATE AND LOCAL GOVERNMENTS ARE NOT PROTECTED BY THE 50 CENT CAP ON RESIDENTIAL RATES, state agencies THESE GOVERNMENTS will see changes INCREASES to their electric utility bills.
23 24 25 26 27 28 29	<b>Basis for suggested change:</b> The language attempts to outline, but does not cover sufficiently the state impact of this initiative. The state is not a residential customer, therefore they will be not be protected by the 50 cent cap on residential rates. The impact to state agencies has not been adequately covered. Voters need to be aware that this proposal will increase the costs to all retail customers, especially the nonresidential customers which include business, industry and state and local governments.
30 31 32 33 34	<b>Staff comment:</b> Agree in part. State agencies should be changed to "state and local governments." However, given existing statutes, staff is unable to say for certain that the PUC will have the latitude to allow utilities to allocate any additional costs in a preferential manner between customer classes. This will be an issue for the PUC to determine in their rulemaking, and one that may ultimately be litigated.

1	Revised staff language:
2	State impact. The renewable energy requirement will be administered by the
3	Colorado Public Utilities Commission. Average annual administrative costs to the
4	Commission are estimated at roughly \$60,000, with the potential for an additional
5	one-time start-up cost of up to \$80,000. These costs will be covered by fees charged to
6	affected utilities. In addition, to the extent that this proposal changes retail electricity
7	rates, state agencies AND LOCAL GOVERNMENTS will see changes to their electric utility
8	bills.
9	***********
10	24. Responder: David Lock, Colorado Association of Municipal Utilities
11	Suggested change: Page 4, lines 17-19:
12	Impact on retail electricity rates. The impact on retail electricity rates is difficult
13	to predict with certainty, HOWEVER IT IS CERTAIN THAT COSTS AND RATES WILL INCREASE
14	IF THE COST OF PRODUCING ELECTRICITY FROM RENEWABLES IS GREATER THAN FROM
15	CONVENTIONAL SOURCES. Changes in retail electricity rates as a result of this proposal
16	will vary by service provider, and will depend upon several factors, including:
17	Basis for suggested change: The language says rate impacts are difficult to
18	predict with certainty. It is certain that costs and rates will increase if the cost of
19	producing electricity from renewables is greater than from conventional fuel sources.
20	The language does not make it clear that customers, especially commercial, industrial and
21	wholesale customers, will experience higher electric rates if voters approve it.
22	Staff comment: Agree in part. While changes in costs will result in changes in
23	rates, these changes in costs will vary by utility and will depend on at least the factors
24	identified in the bullets. Staff is not certain that the Commission will have the latitude
25	to allow utilities to allocate any additional costs in a preferential manner between
26	customer classes. Staff suggests striking the first sentence since this issue is addressed
27	in the second bullet that follows.
28	Revised staff language:
29	Impact on retail electricity rates. The impact on retail electricity rates is difficult
30	to predict with certainty. Changes in retail electricity rates as a result of this proposal
31	will vary by service provider, and will depend upon several factors, including:

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2	Suggested change: Page 4, line 17-28:
3	Impact on retail electricity rates. The impact on retail electricity rates is difficult
4	to predict with certainty. Changes in retail electricity rates as a result of this proposal
5	will vary by service provider, and will depend upon several factors, including:
6	• the amount of renewable generation the provider has installed versus the
7	amount it must acquire from other providers in the form of renewable energy
8	credits;
9	• the RELATIVE cost difference of generating electricity from THE AFFORDABLE
10	renewable sources versus the more expensive and unpredictable
11	conventional fuel sources;
12	<ul> <li>the price of natural gas and coal;</li> </ul>
13	<ul> <li>whether federal tax credits for renewable energy facilities are extended</li> </ul>
14	AVAILABLE;
15	<ul> <li>the amount of solar generation the provider currently has in place; and</li> </ul>
16	• the number of customers choosing to install on-site solar facilities.
17	Staff comment: Agree in part. The federal production tax credit for renewable
18	energy facilities expired in 2003 and need to be re-enacted before they are available
19	again. The addition of the word "relative" before "cost difference" is unnecessary. The
20	other suggested changes are subjective.
21	Revised staff language: amend the bullet on line 26:
22	• whether federal tax credits for renewable energy facilities are extended
23	AVAILABLE;
24	***********

Responder: Manolo Gonzalez-Estay, Renewable Energy Initiative

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