Regular Meeting of the
Utility Advisory Committee Agenda
February 20, 2020 – 3:30 PM
Council Conference Room

Item	Description	Estimated Completion
I.	Call to Order	3:30 pm
II.	Roll Call	3:35
III.	Approval of Minutes	3:40
IV.	Approval of Consent Agenda*	3:45
	a. Project acceptance of WWTF Phase II Electrical Upgrades (2018-01)	
V.	Correspondence and Citizen Comments on Non-Agenda Items**	3:45
	None	
VI.	Telecommunications Utility Discussion Items	3:45
	None	
VII.	Electric, Natural Gas, Water, Wastewater, Stormwater Utility Discussion Items	
	a. Low income Eldery/Disabled citizen definition clarification	4:00
	b. Low income utility rate management agreement	4:15
	c. CETA Incremental Cost Methodology	4:30
VIII.	Information Only Items	
	a. Public Works & Utilites Issues Update	4:45
	b. Intro to the Clean Energy Transformation Act Webinar	4:50
	c. Our Environment petition for City of Ellensburg 100% clean renewable energy	5:00
IX.	Next Meeting: March 19, 2020 @ 3:30 pm in the Council Conference Room	5:15
X.	Adjournment	

***Guidelines for Consent Agenda**

Consent items have been distributed to committee members in advance for study and will be enacted by one motion. If separate discussion is desired on an item, that item may be removed from the Consent Agenda and placed on the Regular Agenda at the request of a committee member or at the request of a member of the public with concurrence of a committee member.

****Guidelines for Citizen Comment**

Time is set aside each meeting to allow citizens to address the Utility Advisory Committee on city utility issues that are not on the agenda. Please limit remarks to three minutes. The Committee will not take action when the

issue is first raised, but may place the issue on a future agenda. Citizen comment on items on the agenda is also welcome. Please let the chair know you wish to speak and then wait to be recognized.

UTILITY ADVISORY COMMITTEE

January 16, 2020 (3:28 pm to 4:01 pm)

Members Present: Nancy Lillquist, Nancy Goodloe, Gary Gleason and Elvin Delgado

Members Absent: Ed Barry, Jim Goeben and Bob Johnson

Also Present: Ryan Lyyski, Public Works & Utility Director; Kim Caulkins, Operations Analyst; Buddy Stanavich, Power & Gas Manager; Julie Coppock, Rate Analyst; Darren Larsen, Assistant Utilities Director

These minutes are not a verbatim transcript of the meeting. This meeting was recorded, and is available for listening or copying at the City of Ellensburg, Energy Services Department, 501 N. Anderson Street, Ellensburg.

I. **Call to Order.** Nancy Lillquist called the meeting to order at 3:28 p.m.

II. **Roll Call.** Ed Barry was absent (excused).

III. **Elect Chairperson and Vice Chairperson** Nancy Goodloe moved to nominate Nancy Lillquist as committee chair. Motion was seconded and approved. Nancy Lillquist nominated Ed Barry for committee Vice Chair. Motion was seconded and approved.

IV. **Approval of Minutes.** Nancy Goodloe moved to approve the minutes. Elvin Delgado seconded. Motion approved.

V. **Approval of Consent Agenda.**
None

VI. **Correspondence and Citizen Comments on Non-Agenda Items**
None

VII. **Telecommunications Utility Discussion Items**
None

VIII. **Electric, Natural Gas, Water, Wastewater, Stormwater Utility Discussion Items**

A. **Disposal of Surplus Water Division Property.** Ryan Lyyski presented the locations of the proposed surplus properties. Nancy Lillquist requested that the house located on Highway 10 be salvaged as much as possible if it has to be demolished.

Motion #2020-01-01: Nancy Goodloe moved the committee make a favorable recommendation to City Council to authorize the surplus of parcels #554434, #674434 and the residential structure located at 7640 Hwy 10. ***Elvin Delgado seconded. Motion Approved.***

B. **Consulting Services for House Bill 1257.** Buddy Stanavich informed the committee that the new HB1257 will effect gas utilities. Sustainable Energy Ventures, LLC was selected as the consultant to assist the City of Ellensburg to monitor the Department of Commerce & Washington Utilities and Transportation Commission rulemaking for HB1257. There is money allocated in the 2020 budget for the services.

Motion #2020-01-02: Nancy Lillquist moved the committee make a favorable recommendation that staff enter into a professional service contract not exceeding more than $12,500 to hire a consultant to monitor HB1257. ***Elvin Delgado seconded. Motion Approved.***

IX. Information Only Items.

A. **Public Works & Utilities Issues Update** Ryan Lyyski gave updates on sewer, water and storm. Darren Larsen gave updates on electric and gas. He also notified UAC members that the 2020 WPAG agreements with EES consulting, Inc. and Marsh Mundorf Pratt Sullivan & McKenzie have been signed. Director Lyyski mentioned staff is moving forward to enter into a professional services agreement with FCS to provide a cost of service model for the gas utility which will help the city streamline the cost of service models for all the utilities. FCS had previously completed cost of service analysis for the Electric, Sewer and Water Divisions but the Gas Division cost of service analysis was done in-house by staff. This agreement will utilize FCS to validate the Gas Division cost of service model.

B. **High Utility Rate Correspondence.** Nancy Lillquist handed out letters between the city and a utility customer regarding the customer's complaint of high utility base rates. Chair Lillquist notified UAC members this was for information only but if anyone wanted to discuss it further, it could be brought back to UAC as an agenda item.

X. Next Meeting Date. February 20th, 2020 at 3:30 pm in Council Conference room.

XI. Adjournment. With no further discussion, the meeting adjourned at 4:01 p.m.

Respectfully submitted,
Kim Caulkins
Recording Secretary
Drafted: 1/17/2020
Approved:

AGENDA REPORT

DATE: February 20, 2020

TO: Utility Advisory Committee

THRU: Ryan Lyyski, Public Works & Utilities Director

FROM: Rod Paul, Assistant Public Works Director

RE: Project Acceptance – Bid Call 2018-01
Waste Water Treatment Facility (WWTF) – Phase II Electrical Upgrades Project

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SUMMARY: Work on the WWTF Phase II Electrical Upgrades Project is complete. Staff is requesting the UAC provide a favorable recommendation to City Council to accept Bid Call 2018-01, WWTF Phase II Electrical Upgrades Project as complete.

BACKGROUND: The City contracted with Gray & Osborne Engineering to complete the design work, and create the bid document specifications for the WWTF Phase II Electrical Upgrades Project. The project replaced the old electrical system components in the Influent Pump Building, which were nearing the end of their useful life. The cost of the WWTF Phase II Electrical Upgrades Project ($1,225,600.78) was constructed by the lowest responsive and responsible bidder. City Council awarded the WWTF Phase II Electrical Upgrades Project construction contract to Colvico, Inc. at its March 5, 2018 meeting.

City Council at its January 7, 2019 meeting authorized the City Manager to authorize a change order agreement with Colvico, Inc. for three (3) additional items of work ($66,969.73). The total cost of the WWTF Phase II Electrical Project was $1,292,570.51

ANALYSIS/FINDINGS: Colvico, Inc. has completed the WWTF Phase II Electrical Upgrade Project.

Fiscal Impact: The project was completed for $1,269,514.73. Adequate funding existed in the 2018 & 2019 Sewer Capital Equipment & Replacement budgets for the WWTF Phase II Electrical Upgrade Project.

RECOMMENDATION: Staff recommends UAC forward a favorable recommendation to the City Council to accept Bid Call 2018-01, WWTF Phase II Electrical Upgrade Project as complete.

City of Ellensburg WASHINGTON

UTILITY ADVISORY COMMITTEE AGENDA REPORT

UAC Meeting Date: February 20, 2020

Submitted by: Ryan Lyyski, Public Works and Utilities Director RL

Must Approve: ☐ City Attorney ☐ Finance ____ City Manager

Additional Approvals: ☐ Choose Department ☐ Other Department

Agenda Subject: Definition Correction - Low Income Disabled Citizen

Action Requested (check all that apply):	Ord. 1st reading ☒	Ord. 2nd reading ☐	Legislative Hrg. ☐	Quasi-Judicial Hrg. ☐	Appeal Hrg. ☐
	Adopt Resolution ☐	Approve contract ☐	Approve budget adjustment ☐	Approve – other ☐	Review Report or Study ☐
	Direction to staff ☐	Discussion only ☐	Bid Award ☐	Other ☐ (describe): _____	

BACKGROUND/SUMMARY: Staff has recently discovered an inconsistency in the current definition for Low Income Disabled Citizen in Title 9 of the utilities code. The UAC is being requested to forward a favorable recommendation to the City Council amending definition of Low Income Disabled Citizen.

PREVIOUS COUNCIL ACTION: The definition of Low Income Disabled in ECC 9.30.020 was modified in 2010 (Ordinance 4571) and again in 2013 (Ordinance 4650). This definition was not modified in 2019 as part of the standardization of the utility discount program.

ANALYSIS: Staff recommends clarifying the language in existing code to make the qualifying criteria easily understood. Staff recommends changing the existing language from:

> ~~"Low-income disabled citizen" means a person who: (A) has a combined household income at or below 125 percent of the federally established poverty level; (B) provides documentation of disability from the Social Security Administration of the federal government; (C) qualifies for special parking privileges under RCW 46.19.010(a) through (j); (D) demonstrates through documentation from a qualified medical professional that he or she has a disability identified in RCW 46.19.010(a) through G); or (E) qualifies as a blind person as defined in RCW 74.18.020.~~

to

"Low-income disabled citizen" means a person ~~who: (A) has~~ with a combined household income at or below 125 percent of the federally established poverty level who:; ~~(B)~~ (A) provides documentation of disability from the Social Security Administration of the federal government; or ~~(C)~~ (B) qualifies for special parking privileges under RCW 46.19.010(a) through (j); or ~~(D)~~ (C) demonstrates through documentation from a qualified medical professional that he or she has a disability identified in RCW 46.19.010(a) through (j); or ~~(E)~~ (D) qualifies as a blind person as defined in RCW 74.18.020.

FINANCIAL IMPACT: N/A

RECOMMENDED ACTION OR MOTION: Consider proposed modification and forward favorable recommendation to the City Council adopting an ordinance instituting the proposed definition for Low Income Disabled as follows:

"Low-income disabled citizen" means a person ~~who: (A) has~~ with a combined household income at or below 125 percent of the federally established poverty level who:; ~~(B)~~ (A) provides documentation of disability from the Social Security Administration of the federal government; or ~~(C)~~ (B) qualifies for special parking privileges under RCW 46.19.010(a) through (j); or ~~(D)~~ (C) demonstrates through documentation from a qualified medical professional that he or she has a disability identified in RCW 46.19.010(a) through (j); or ~~(E)~~ (D) qualifies as a blind person as defined in RCW 74.18.020.

UAC Meeting Date: February 20, 2020

Submitted by: Darren Larsen, Assistant Utilities Director DL

Must Approve: ☐ City Attorney ☐ Finance ____ City Manager

Additional Approvals: ☐ **Choose Department** ☐ **Other Department**

Agenda Subject: Agreement between the City of Ellensburg and HopeSource for Management of the Low Income Utility Rate Program

Action Requested (check all that apply):	Ord. 1st reading ☐	Ord. 2nd reading ☐	Legislative Hrg. ☐	Quasi-Judicial Hrg. ☐	Appeal Hrg. ☐
	Adopt Resolution ☐	Approve contract ☐	Approve budget adjustment ☐	Approve – other ☒	Review Report or Study ☐
	Direction to staff ☐	Discussion only ☐	Bid Award ☐	Other ☒ (describe): Favorable Recommendation	

BACKGROUND/SUMMARY: A Request for Proposals R20-01 for the Management of the Low Income Utility Rate Program was advertised and one proposal was submitted by HopeSource of Ellensburg. Staff completed their review and selection process for R20-01. HopeSource was selected to perform the work and staff is requesting a favorable recommendation from the UAC to authorize the City Manager to execute an Agreement between the City of Ellensburg and HopeSource for Management of the Low Income Rate Program. The Agreement will be reviewed and approved by the City Attorney prior to the City Manager's signing of the Agreement.

PREVIOUS COUNCIL ACTION: During adoption of Ordinance 4844 Low Income Utility Rate Standardization in December, 2019, two recommendations were included along with the guiding principles established to standardize the program. City Council directed staff to utilize an outside organization for the low-income rate qualification process as well as to convert from an annual to bi-annual customer qualification renewal schedule.

ANALYSIS: A Request for Proposals was advertised and only one response was received, HopeSource. Staff selected HopeSource by rating their proposal based on three different criteria related to the scope of services and submission requirements of the RFP. The selection criteria consisted of the following:

1. Experience of key personnel and firm (40%)
2. Strength of the approach described in the proposal (20%)
3. Cost to the City (40%)

FINANCIAL IMPACT: Cost impacts will vary amongst the different utilities. A flat rate of

$65 for every customer/account qualified for the program will be charged. Cost to manage and qualify the existing 155 customers on the low income rate would be $10,075 every two years.

RECOMMENDED ACTION OR MOTION: Staff is requesting a favorable recommendation from the UAC to authorize the City Manager to execute an Agreement, after review and approval by the City Attorney, between the City of Ellensburg and HopeSource for Management of the Low Income Rate Program

AGENDA REPORT

DATE: February 20, 2020

TO: Utility Advisory Committee

THRU: Ryan Lyyski, Utility Manager

FROM: Buddy Stanavich, Power & Gas Manager

RE: **CETA INCREMENTAL COST METHODOLOGY**

SUMMARY: Staff is notifying the Utility Advisory Committee that The Washington Department of Commerce (Commerce) requests written comments to the attached questions concerning the incremental cost methodology and the 2% rate impact provision. Comments are due February 28, 2020.

BACKGROUND: Commerce and the Washington Utilities and Transportation Commission (UTC) will conduct a joint workshop on Mar. 17, 2020, to discuss rules to implement the provisions in RCW 19.405.060 concerning the provision. This section of CETA has separate but similar provisions applying to consumer-owned utilities and investor-owned utilities that elect to limit their use of renewable or non-emitting resources due to rate impacts.

FISCAL IMPACT: Not known at this time

RECOMMENDATION: Staff seeks guidance from the Utility Advisory Committee on responding to Commerce with written comments to the attached questions concerning the incremental cost methodology and the 2% rate impact provision.

Clean Energy Transformation Act Rulemaking

Request for Comments – Incremental Cost Methodology

Comments requested by Feb. 28, 2020

Email comments to ceta@commerce.wa.gov

The Washington Department of Commerce (Commerce) and the Washington Utilities and Transportation Commission (UTC) will conduct a joint workshop on Mar. 17, 2020, to discuss rules to implement the provisions in RCW 19.405.060 concerning the incremental cost methodology and the 2% rate impact provision. This section of CETA has separate but similar provisions applying to consumer-owned utilities and investor-owned utilities that elect to limit their use of renewable or nonemitting resources due to rate impacts.

In preparation for this workshop, Commerce requests written comments on the questions below concerning this provision. The UTC requested comment on this topic, as it would be applied to investor-owned utilities, in a notice issued Jan. 15 in its Docket UE-191023.

Stakeholders are also welcome to provide general comments about potential rules concerning the implementation of RCW 19.405.060(4). As a convenience, this subsection is included at the end of this document.

1. RCW 19.405.060(4) requires a consumer-owned utility use its retail revenue requirement as part of its incremental cost calculation. CETA does not define "revenue requirement." The term is defined by rule for purposes of the Energy Independence Act in WAC 194-37-040.
   a. Should the term "revenue requirement" be defined by rule for CETA? Should the existing definition in WAC 194-37-040 be used or adjusted for this purpose?
   b. Are there any categories of revenue that should be specifically included or excluded if the term is defined?
   c. Is it common practice for a consumer-owned utility to establish a calendar-year revenue requirement as part of their budget process? Is the revenue requirement revised during a year? If so, should these revisions affect the calculation under RCW 19.405.060(4)?

2. With regard to the 2% rate impact provision in RCW 19.405.060(4)(a):
   a. If a utility relies on this compliance option, should incremental costs be determined based on a forecast, at the time the utility submits its Clean Energy Implementation Plan? Should compliance be determined based on actual expenditure data at the conclusion of each four-year period? Should there be a provision for interim reporting during the four-year period?

b. If compliance is based on a forecast of costs, and the utility's actual incremental costs increase more or less than 2% per year averaged over the four-year period, should a true-up mechanism be provided to reconcile the differences between the actual and the forecasted incremental cost?

3. When using the 2% rate impact compliance option, RCW 19.405.060(4)(a) requires all costs be directly attributable to the actions necessary to comply with RCW 19.405.040 and RCW 19.405.050. How should a utility demonstrate that each cost is "directly attributable to actions necessary" for the utility to comply with those two standards?

4. RCW 19.405.060(4)(b) states that if a utility relies on the 2% rate impact option and has not used 80% renewable or nonemitting resources, it must demonstrate that it has maximized investments in renewable resources and nonemitting electric generation prior to using an alternative compliance option under RCW 19.405.040(1)(b).
   a. How should a utility make this required demonstration that it maximized investments?
   b. Should this provision be interpreted to prohibit any use of alternative compliance options if the utility has not used renewable or nonemitting resources for at least 80% of retail electric sales in Washington?

5. Should the requirements for use of the 2% rate impact option differ with respect to interim targets for periods prior to 2030, established based on RCW 19.405.060(2)(a)(i), as compared to the requirements applicable for compliance periods starting in 2030.

RCW 19.405.060 excerpt

(4)(a) A consumer-owned utility must be considered to be in compliance with the standards under RCW 19.405.040(1) and 19.405.050(1) if, over the four-year compliance period, the average annual incremental cost of meeting the standards or the interim targets established under subsection (2) of this section meets or exceeds a two percent increase of the consumer-owned utility's retail revenue requirement above the previous year. All costs included in the determination of cost impact must be directly attributable to actions necessary to comply with the requirements of RCW 19.405.040 and 19.405.050.

(b) If a consumer-owned utility relies on (a) of this subsection as a basis for compliance with the standard under RCW 19.405.040(1), and it has not met eighty percent of its annual retail electric load using electricity from renewable resources and nonemitting electric generation, then it must demonstrate that it has maximized investments in renewable resources and nonemitting electric generation prior to using alternative compliance options allowed under RCW 19.405.040(1)(b).

Ellensburg Utility Advisory Committee
Public Works & Utilities Issues and Updates
February 20, 2020

Consent Items

Agenda Reports for items approved by the City Council since our last meeting are attached.

Sewer

- 2020 Cured-In-Place project is out for bid closing on Tuesday March 3.
- Staff have ordered parts to rebuild components on the Gravity Belt Thickener (GVT).
- Collections staff are working on the Spring jet list.

Water

- Water Pumped for January 2020 was 82,218,000 Compared to January 2019 which was 77,432,000
- Pump Tech INC. was on site Wednesday February 12th to remove the pump and motor for Whitney Well for inspection and suggested repairs if necessary.
- Staff have an agreement with Hydrevolution for the 2020 water leak detection project.

Storm

- Staff will attend the February 18, 2020 City Council meeting and bring forth a resolution/purchase and sale agreement along with the 2nd reading of the bond ordinance to acquire the remaining 56 acres of land north of Dolarway. The design for the setback levee, flood swales and new fish passable 35 foot bridge on Dolarway are complete and ready for bid. After acquisition staff will go out for SEPA comments and it's possible this project could be constructed late this summer early fall.
- Gateway 1 is at 30% design and will begin coordinating with city utilities and franchisees to relocate in the near future.
- Staff is working on the annual Stormwater Management Plan due to Ecology by March 31st along with the annual report. Staff will bring this to the March UAC meeting to forward a favorable recommendation to the City Council.
- Staff wrote a grant in October 2019 to Ecology for Gateway 2 on Vantage Highway. The City made the draft offer list and ranked 20 out of 160 applicants statewide. The city must now wait to see of the State Legislature passes the budget to see of the project gets funded.

Electric

- Staff is currently preparing a bid for 2020 Substation Maintenance (East Ellensburg) and a quotes for secondary bushing replacements for Dolarway Substation Transformer.
- The pole relocation project on Willow St. is ongoing and should be finished by the end of February.
- Journeyman Lineman position is still vacant and will be advertised for again in February.

- The Power & Gas Manager attended the joint UTC and Department of Commerce meeting at the UTC headquarters in Lacey, WA regarding Defining Low Income and Energy Assistance need as part of compliance with CETA, RCW 19.405.060.
- The Power & Gas Manager participated in the 2021 State Energy Strategy meeting remotely.

Gas

- The Corrosion Control Evaluation on the City's gas system by Coffman Engineer's is complete and we should be receiving a final report within the next week or so.
- Bob Thorpe retired from the Gas Division after 30 years of service in the Gas Division.
- A Gas Technician position was posted within the Teamster Union to fill the vacancy in the Gas Division. This position will eventually be placed into the Gas Main Fitter Apprenticeship.
- Staff made a recent natural gas purchase commitment to Shell Energy North America. The purchase commitment is for 1000 MMBtu/day at $1.630/MMBtu for the month of March 2020. The total value of the contract purchase is $33,712. The City Manager notified City Council at the February 3, 2020 meeting.
- Staff made recently made two additional natural gas purchase commitments to Shell Energy North America. The first purchase commitment is for 1000 MMBtu/day at $1.39/MMBtu for the month of April 2020. The total value of the first contract purchase is $41,700. The second purchase commitment is for 1000 MMBtu/day at $1.22/MMBtu for the month of May 2020. The total value of the second contract purchase is $37,820. City Council will be notified through the City Manager's report.
- Staff attended the UTC sponsored Pipeline Operators Meeting in Lacey, WA on February 18-19th.
- Staff is gathering data for the Natural Gas Utility COSA to provide to the consultant.

AGENDA REPORT

DATE: February 20, 2020

TO: Utility Advisory Committee

THRU: Ryan Lyyski, Utility Manager

FROM: Julie Coppock, Rate Analyst

RE: **INTRO TO THE CLEAN ENERGY TRANSFORMATION ACT WEBINAR**

SUMMARY: The Clean Energy Transformation Act (CETA) commits Washington to an electricity supply that's free of greenhouse gas emissions by 2045. Many cities own and operate their own electric utilities. CETA will affect the way city-owned electric utilities supply electricity. This webinar will discuss the ways CETA impacts utilities' rate setting and financial obligations for low-income users, as well as the several deadlines municipal electric utilities must comply with to avoid large penalties.

The Association of Washington Cities (AWC) is hosting a webinar February 28, 2020 from 12:00 PM to 1:00 PM.

This webinar is for city elected officials and staff.

BACKGROUND: On May 7, 2019, Governor Jay Inslee signed into law the Clean Energy Transformation Act (CETA) (**E2SSB 5116**), which commits Washington to an electricity supply free of greenhouse gas emissions by 2045.

FISCAL IMPACT: None, this is a free webinar

RECOMMENDATION: Staff recommends that UAC members participate in this webinar. For members interested in attending, please RSVP with Julie. Staff will have a brown bag type webinar set up in the Council Conference Room Friday, February 28, 2020 from 12:00 PM to 1:00 PM.

As citizens of the Ellensburg, Washington area,

we call on the Ellensburg City Council to pledge that the City will be powered by 100% clean renewable energy by 2035 joining over 100 US cities that have made this pledge, or have reached this goal. In June, the US Conference of Mayors passed a resolution unanimously endorsing such pledges for its entire membership.

The multiple compelling reasons to take this pledge include:

Renewable energy offers long term cost savings and stability, as wind and solar now flourish and prices have plummeted.

Since cities produce 70% of global greenhouse gas emissions, eliminating these emissions by converting to renewable energy is a potent step in combatting anthropogenic climate change, and thus mitigating such impacts as wildfires, heat waves, drought, floods, extreme weather, sea level rise, and ocean acidification.

Renewable energy usage will create approximately 1 million new US jobs by 2030, and will likewise benefit the Ellensburg economy.

The technological advances and decreased pollution will help attract high tech businesses, tourists, and relocating workers to Central Washington. Each city will have a unique pathway to reach 100% green energy.

Possible steps for Ellensburg include:

- Solar and wind contracts for City energy needs.
- Build partnerships with the county and land owners for developing a public owned solar utility benefitting our city and region and supporting our infrastructures.
- Facilitation of green energy availability for residential requirements, considering a rebate program for home rooftop solar.
- Replacement of City gasoline vehicles with electric cars, taxis, and buses.
- Electric car or charger rebates for citizens, in addition to federal/state rebates.
- Facilitation of electric vehicle charging stations, for local citizens and as a magnet for travelers.
- Adopt regulations requiring new, multiple unit dwellings to have charging stations and xeroscape or drought resistant landscaping.
- Facilitate a program that supports solar installations for low income housing, perhaps in partnerships with local/regional solar installers and student education programs that mentor the next generation of energy workers.
- More stringent building efficiency regulations on new construction, particularly concerning solar readiness and water use, including mandatory rooftop solar for commercial construction.
- Support of local food growers and markets, and consider implementing a food waste composting program for the city that could be used where petro dependent fertilizers are now used for city maintenance.

PLEASE SIGN THIS PETITION AND SHARE.

We call on the Ellensburg City Council to pledge to go 100% renewable by 2035 at the latest. The City will recognize economic benefits, with lower energy costs and job creation. And with climate action at the federal level stalled, the responsibility for strong action for a zero carbon future and a livable biosphere for our children falls to the cities.

WE TRUST ELLENSBURG
WILL TAKE THIS URGENTLY
NEEDED ACTION.

Sponsored by:
Our Environment Kittitas County
oekc.weebly.com
Join us for meetings and community
Second Tuesday 7:00 pm at The United Methodist Church

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has."
– Margaret Mead

"Imagine, therefore, a world where carbon emissions have long been steadily declining– at a handsome profit, because saving fuel costs less than buying fuel; where global climate has stabilized and repair has begun; and where this planetary near-death experience has finally made antisocial and unacceptable the arrogance that let cleverness imperil the whole human prospect by outrunning wisdom."

—Amory B. Lovins Cofounder, Chairman, and Chief Scientist Rocky Mountain Institute.

The NEW ENGLAND JOURNAL of MEDICINE

Perspective

The False Promise of Natural Gas

Philip J. Landrigan, M.D., Howard Frumkin, M.D., Dr.P.H., and Brita E. Lundberg, M.D.

Production of natural gas has grown by nearly 400% in the United States since 1950, and gas is now the country's second-largest energy source. The main driver of this increase has been the wide-scale adoption of hydraulic fracturing ("fracking"). During the fracking process, large volumes of water, sand, and chemicals are injected deep underground at high pressure to fracture shale deposits and sand and coal beds to release trapped gas. The world's largest gas-transmission network — with more than 300,000 miles of interstate and intrastate transmission pipelines, 2.1 million miles of local distribution lines, and more than 1000 compressor stations — brings this gas to the market. The ready availability of gas has reduced dependence on coal and oil, enables the United States to ship gas overseas, and will make the country a net energy exporter by 2020.[1] It has also made gas an important feedstock for the chemical, pesticide, and plastics-manufacturing industries.

Natural gas, composed principally of methane, has been hailed as a clean "transition" fuel — a bridge from the coal and oil of the past to the clean energy sources of the future. This claim is partially true. Gas combustion produces only negligible quantities of sulfur dioxide, mercury, and particulates. It is thus less polluting than combustion of coal or oil, and this benefits health.[2] Gas combustion also generates less carbon dioxide per unit of energy than combustion of coal or oil.

But beneath this rosy narrative lies a more complex story. Gas is associated with health and environmental hazards and reduced social welfare at every stage of its life cycle.[2] Fracking is linked to contamination of ground and surface water, air pollution, noise and light pollution, radiation releases, ecosystem damage, and earthquakes (see table). Transmission and storage of gas result in fires and explosions. The pipeline network is aging, inadequately maintained, and infrequently inspected. One or more pipeline explosions occur every year in the United States. In September 2018, a series of pipeline explosions in the Merrimack Valley in Massachusetts caused more than 80 fires and explosions, damaged 131 homes, forced the evacuation of 30,000 people, injured 25 people, including two firefighters, and killed an 18-year-old boy. Gas compressor stations emit toxic and carcinogenic chemicals such as benzene, 1,3-butadiene, and formaldehyde. Wells, pipelines, and compressor stations are disproportionately located in low-income, minority, and marginalized communities, where they may leak gas, generate noise, endanger health, and contribute to environmental injustice while producing no local benefits. Gas combustion generates oxides of nitrogen that increase asthma risk

Health and Environmental Hazards of Natural Gas.*

Category	Pathways and Mechanisms	Established and Potential Health Hazards
Local hazards		
Water contamination	Ground and surface water at gas wells is contaminated with fracking chemicals.	Many fracking chemicals are toxic: 25% are carcinogens; 75% are dermal, ocular, respiratory, and gastrointestinal toxins; 40 to 50% have toxic nervous, immune, cardiovascular, and renal effects; 30 to 40% are endocrine disrupters
Air pollution	Heavy trucks, construction equipment, and drill rigs emit diesel exhaust, oxides of nitrogen, and particulates; sand piles release silica dust; gas venting and flaring produce volatile organic compounds (benzene, 1,3-butadiene, and formaldehyde).	Exacerbation of asthma and COPD; increased risk of cardiovascular disease and diabetes; increased risk of prematurity and low birth weight; volatile organic compounds increase risk for leukemia and lymphoma
Noise pollution	Heavy equipment and gas flaring generate nearly continuous noise; sound levels can reach 70 A-weighted decibels, which exceeds EPA community guidelines.	Sleep disturbance; stress (associated with increased cardiovascular disease risk); cognitive deficits in children
Light pollution	High-intensity illumination and gas flaring generate bright light day and night	Sleep disturbance; stress
Radionuclide releases	Some shale formations contain naturally occurring radionuclides such as radon, principally in Pennsylvania and Texas.	Cancers, chiefly lung cancer
Earthquakes	Seismic activity is increased near fracking sites and up to 30 miles away.	Injuries; anxiety; loss of property value
Community disruption	Poor and minority communities are disproportionately exposed to noise, toxic chemicals, and explosion hazards.	Mental health problems; substance abuse; sexually transmitted diseases
Regional hazards		
Fires and explosions	Pipeline explosions occur every year in the United States and recently occurred in Armada Township, MI; Refugio, TX; Salem, PA; Watford City, ND; and Merrimack Valley, MA.	Injury; death
Air pollution from gas combustion	Gas combustion in stoves, boilers, and furnaces generates oxides of nitrogen.	Increased asthma risk; exacerbation of COPD and cardiovascular disease
Global hazards		
Contributions to climate change	Use of natural gas causes methane leakage and gas combustion generates carbon dioxide.	Heat waves; extreme weather events; droughts; floods; wildfires; expanded ranges of vectorborne diseases; compromised food supplies resulting in famine, migration, conflict, and mental distress

* COPD denotes chronic obstructive pulmonary disease, and EPA Environmental Protection Agency. Sources of information are listed in the Supplementary Appendix, available at NEJM.org.

and aggravate chronic obstructive pulmonary disease.

Compounding these hazards are the grave dangers that gas extraction and use pose to the global climate.[3] Gas is a much more powerful driver of climate change than is generally recognized. As much as 4% of all gas produced by fracking is lost to leakage, and these releases appear to have contributed to recent sharp increases in atmospheric methane.[4] Methane is a potent contributor to global warming, with a heat-trapping potential 30 times greater than that of carbon dioxide over a 100-year span and 85 times greater over a 20-year span. Gas burned in stoves and boilers additionally contributes to global warming by generating carbon dioxide. Together, this evidence suggests that the purported advantage of gas over coal and oil has been greatly overstated.

Despite growing recognition of the dangers associated with gas and recent exponential increases in the production of electricity

from renewables, new gas wells continue to be drilled and new pipelines built. The U.S. Energy Information Administration projects that daily natural-gas production in the United States will increase by 10 billion cubic feet in the next year and that under current federal policy, more electricity will be generated from gas than from renewables each year from now through 2050.[1] This expansion of the gas infrastructure is supported by government subsidies and tax breaks that benefit the fossil-fuel industry and artificially depress gas prices.[5] State subsidies provide additional support for fossil fuels.

As physicians deeply concerned about climate change and pollution and their consequences, we consider expansion of the natural-gas infrastructure to be a grave hazard to human health. All reasonable analyses indicate that we must leave nearly all remaining fossil fuels in the ground if we are to hold the extent of global warming below 1.5°C, the target set by the Intergovernmental Panel on Climate Change, and thus mitigate the health and environmental consequences of climate change.

A further argument against investment in gas is that it is economically reckless. Such investment ignores the reality that the cost of producing electricity from renewables is falling rapidly and that energy prices are approaching a "tipping point" after which it will become cheaper to generate electricity from solar and wind sources than from gas. The Energy Information Administration estimates that by 2023 it will cost $36.60 per megawatt-hour to produce electricity from wind and $37.60 to produce solar energy, versus $40.20 to produce energy from gas. Any investment in gas is thus at risk of failing to yield an economic return and becoming a stranded asset. This risk could increase if federal subsidies for gas were to be cut.

We believe that investment in gas is also shortsighted. States that provide subsidies for gas and permit construction of new pipelines and compressor stations will lock in dependence on gas for years to come while missing opportunities to invest in renewables. The real problem with fracking, then, is that it perpetuates the carbon-based energy system and delays the transition to a carbon-free economy.

To address this problem, we recommend that state and federal subsidies for natural gas be reduced over the next 2 years and then eliminated. The International Monetary Fund has made similar recommendations. We also recommend that new residential or commercial gas hookups not be permitted, new gas appliances be removed from the market, further gas exploration on federal lands be banned, and all new or planned construction of gas infrastructure be halted. We believe an ill-conceived proposal announced recently by the Environmental Protection Agency to roll back limits on methane pollution needs to be blocked. At the same time, we call for the creation of new tax structures, subsidies, and incentives such as carbon pricing that favor wind, solar power, and other nonpolluting, renewable energy sources and policies that support energy conservation, clean vehicles, and expansion of public transit.

Implementation of these recommendations will require courageous political leadership and face fierce resistance. But wide-scale transition to renewables would yield enormous benefit for the United States. It would reduce air pollution and therefore prevent disease, extend life expectancy, and reduce health care costs. It would free up the billions of public dollars now spent on fossil-fuel subsidies, and it would protect our planet.

Models exist for effective climate action. In July 2019, New York State enacted comprehensive energy and climate legislation and pledged to reduce greenhouse-gas emissions by 85% by 2050. To meet this target, New York is developing the country's largest wind farm and collaborating with Ireland and Denmark to improve its electric power grid. It has also created economic incentives for clean vehicles, including trucks and buses, and tax incentives for energy conservation. Idaho Power, the largest utility in a deeply conservative state, has pledged to produce 100% of its electricity from renewable sources by 2045. The United Kingdom has committed to net zero carbon emissions by 2050. New York, Idaho, and the United Kingdom are creating new, high-paying jobs in the wind and solar energy industries.

Natural gas has been portrayed as a bridge to the future. The data now show that it is only a tether to the past. We believe it's time to reject the false promise of gas.

Disclosure forms provided by the authors are available at NEJM.org.

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