DATE: 02/18//2022

TO: City Clerk

FROM: Peter Svarzbein Representative of District 1

ADDRESS: 8001 N. Mesa E-118 TELEPHONE 915-205-1469

Please place the following item on the (Check one): CONSENT X REGULAR

Agenda for the Council Meeting of March 1, 2022

Item should read as follows: Re-Appointment of Howard Pearlmutter to the Regional Renewable Energy Advisory Council by Representative Peter Svarzbein, District 1

BOARD COMMITTEE/COMMISSION APPOINTMENT/REAPPOINTMENT FORM

NAME OF BOARD/COMMITTEE/COMMISSION: Regional Renewable Energy Advisory Council

NOMINATED BY: Representative Peter Svarzbein DISTRICT: 1

NAME OF APPOINTEE Howard Pearlmutter
(Please verify correct spelling of name)

E-MAIL ADDRESS:

BUSINESS ADDRESS:

CITY: ST: ZIP: PHONE:

HOME ADDRESS:

CITY: El Paso ST: TX ZIP: PHONE:

DOES THE PROPOSED APPOINTEE HAVE A RELATIVE WORKING FOR THE CITY? **YES:** **NO** X
IF SO, PLEASE PROVIDE HIS OR HER NAME, CITY POSITION AND RELATIONSHIP TO THE PROPOSED APPOINTEE:
HAS APPOINTEE BEEN A MEMBER OF OTHER CITY BOARDS/COMMISSIONS/COMMITTES? IF SO, PLEASE PROVIDE NAMES AND DATES: NONE
LIST ALL REAL ESTATE OWNED BY APPOINTEE IN EL PASO COUNTY (BY ADDRESS):

WHO WAS THE LAST PERSON TO HAVE HELD THIS POSITION BEFORE IT BECAME VACANT?
NAME OF INCUMBENT: Howard Pearlmutter

EXPIRATION DATE OF INCUMBENT: March 3, 2022

REASON PERSON IS NO LONGER IN OFFICE (CHECK ONE): TERM EXPIRED: X
RESIGNED
REMOVED

DATE OF APPOINTMENT: March 1, 2022

TERM BEGINS ON: March 3, 2022

EXPIRATION DATE OF NEW APPOINTEE: March 3, 2024

PLEASE CHECK ONE OF THE FOLLOWING: 1st TERM:

2nd TERM: X

UNEXPIRED TERM:

HOWARD PEARLMUTTER BIO

Howard Pearlmutter's 45 year professional career has centered around his motto: "Creative Technology for Healthy Ecology".

Pearlmutter has provided professional services, software development, systems integration, technology licensing, &/or strategic mentoring -- spanning well over 200 paid engagements/projects -- for some of the world's leading media, financial, environmental, and educational organizations, including NASA, Disney, Apple, EPA, D&B, CBS, SunGard, CapitalOne, Apax Partners, Amdocs, Xerox, HP, Google, SGI, McKesson, Symantec, CSC, Kodak, Epson, Fujitsu, Tata Communications, Bankers Trust, Valtech, Stereographics, Cable & Wireless, Unisys, SoftwareAG, Elixir, InterBit, DexOne, Conexant, TerraCycle, Atari, The Washington Post and The Financial Times.

Pearlmutter has also been paid to present ticketed public events (masterclasses, technology training seminars), sponsored public events (keynotes, thought leadership seminars), and private sessions (executive briefings, hands-on workshops, team coaching, professional mentoring) to professionals from Intel, IBM, Sun Microsystems, EDS, CSC, Barclays, One2One, Orange, Reach, Amdocs, Nokia, Comverse, Earth Island Institute (pro bono), Friends of the Earth, NASA, Xerox, SGI, Compaq, Motorola, and hundreds of other organizations ranging from large environmental, financial, media, telecom, government, and industrial enterprises to entrepreneurs, startups, consultancies, and R&D organizations across 5 continents.

Pearlmutter's involvement with NASA starting in 1978 exemplifies his motto, and set the stage for dozens of examples of "Creative Technology for Healthy Ecology" over 4 decades.

He helped invent for NASA Ames Research Center a parallel processing architecture to become the world's fastest supercomputer (20 times faster than the Cray). He contributed a topology breakthrough that radically reduced interprocessor bottleneck blockage, designed the parallel programming language, and used it to write the first parallel processing version of the NASA Goddard Institute for Space Studies atmospheric model (including solar income, wind flows, temperature dynamics; a "grand challenge" benchmark, implementing the Navier-Stokes equations of Computational Fluid Dynamics at planetary scale) to simulate the atmosphere of the earth for weather prediction and climate modeling. He distilled 1200 pages of surveys gathered by NASA Ames from the 120 largest US supercomputer labs into a 15-year-future supercomputer needs analysis report. He wrote more CFD code for numerical windtunnel simulation (for airfoil (wind turbine, aircraft, Space Shuttle) design) as an employee of the Laboratory for Computer Science at MIT.

But he also posed a challenging question: "How should human beings interact with such a powerful computer? (Or would the weather simulation results just be a tall stack of green and white numeric printout?)" Based on that 1978 proposition, he carried out the 1980-81 NASA Ames study "Interactive Computer Graphics: The Human Interface to Dynamic Simulation" - a year long harvest from academia, government, and industry of the state of the art in computing & human factors, input

and output technologies, and low level hardware to high level software, culminating in a 700 page report which was perhaps the first comprehensive analysis of the then-embryonic "revolution" now known by such terms as Virtual Reality, Computer Graphics, Digital Media, Teleconferencing, Scientific Visualization, World Wide Web, and Cyberspace. He organized dozens of Silicon Valley events in the early 80s on these themes (from which emerged several of the start-up ventures that carried out the "revolution" -- including the company now known as Dreamworks Animation), and organized and chaired the landmark 1800-attendee event, embedded within 1984 Siggraph conference, which set the world record for largest realtime interactive gaming event, introduced "personal" and "micro" computers into the SIGGRAPH culture for the first time, introduced the Macintosh to the computer graphics world, was the first-ever showing (outside of nondisclosure) of several not-yet-released historic products: the Amiga Computer, and Lucasfilm's "Ballblazer" and "Rescue on Fractalus" -- and a major milestone in the intersection of digital media technology and conference/convention-scale events. In these and dozens of other ways, from 1980 onwards, he played an influential role in the birth and evolution of the Silicon Valley computer graphics community -- leading to extensive professional and personal involvement with the people, companies, and technologies driving the digital media revolution.

Scientifically grounded in his NASA atmospheric simulation work, Pearlmutter's views on solar, renewability, & sustainability in the energy sector made it onto national TV in 1980.

Since then, he's provided longterm vision for solar and renewable energy in general for solving our ecosystemic challenges; he's provided leadership regarding applying software and digital tech toward the advancement of solar energy tech and adoption; and within the industry, he was an early advocate of leveraging non-linear solar pricing dynamics based on Moore's Law for both internal forecasting and for informing the wider energy policy debate.

During 2006-2009 the El Paso Solar Energy Association invited him to speak on multiple occasions, and then elected him to its board and as VP. As EPSEA VP, his activities ranged from presentations on the $80B allocated for Renewable Energy & Energy Efficiency contained in the 2009 federal ARRA simulus, to El Paso-area Regional Economic Development, to Smart Grid, to event facilitation.

He's gotten to know a variety of world Renewable Energy leaders by participating in industry events, such as Intersolar San Francisco 2011 & 2012 & 2013.

His software projects in the solar space have ranged from client-sponsored webapps (for example, accelerating legal and business and regulatory processes for electric utility renewable energy generation adoption and grid connection), to his internally-funded proprietary R&D projects.

He's advised solar entrepreneurs on topics from big picture ecosystemic perspectives all the way down to business and technical details.

He has served as entrepreneurial CIO/CTO of solar-centric startups, ranging from focus on applying PV to power agricultural water pumping, to a venture to accelerate financing workflows for commercial PV installations.

His SolarCIO.com initiative unlocks the best of digital technology + comprehensive systems

strategy + state-of-the-art software tactics so they can be put into service of the renewable energy revolution: to develop solar energy information systems, apply solar power to digital infrastructure, & bring advisory-board and fractional-CIO-level services to the aid of those building the solar economy.

Wider examples of "Creative Technology for Healthy Ecology"

Active at the forefront of sustainable & ecological design for over 4 decades, Pearlmutter is an expert in bringing appropriate information tools -- especially web applications, digital media, teleconferencing, dynamic simulation, computer graphics, CAD, GIS, evolvable languages, complexity management, and collaboration networks --- into service of the whole-systems, environmental, and ecological domains -- including, but not limited to, Renewable Energy.

His technology activities have touched a wide range of sectors: Energy, Finance, Logistics, Manufacturing, Distribution, Retail, Ecommerce, Entrepreneurial, Utility, Recycling, Governmental, Meteorological, Geospatial, Agricultural, Biotech, Medical, Research, Educational, Publishing, Travel, Hospitality, Telecom, Media, Software, Hardware, Semiconductor, & Electronics.

Roots in electronics, electric power technology, energy efficiency:

Pearlmutter's roots as an electronic hobbyist started in the 1960s -- in power, analog, & digital. By 1970, he had built his first AC-to-DC powersupplies and his first DC-to-AC oscillators. His interest in electronics was so strong that he convinced his father to bid in US govt surplus auctions, leading to his personally singlehandedly sorting through 100,000 pounds of military surplus electronics in the summer of 1973.

In 1975 he began putting his FORTRAN skills to profitable use by coding exploded bill of materials and streamlined design and cost estimation for electric power substation development for a utility industry client (which opened his eyes to early opportunities for applying software to improve the grid).

His 1978 NASA computational fluid dynamics work extended into the "digital wind tunnel" realm, relevant to wind turbine/blade design & optimization.

His 1983 Softweaver team developed a pioneering eco-educational-videogame embodying energy-efficiency simulation for client Disney EPCOT ("Experimental Prototype Community of Tomorrow").

Wider examples include:

Sustainability & Transparency (tracking/tracing environmental impacts throughout the supply chain and product lifecycle)

Enterprise Content Management system to support non-GMO vegetable seed breeding R&D, lifecycle, operations, marketing, legal, regulatory compliance.

HTML5/GWT/AJAX/COMET dynamic rich internet applications in support of the US Nationwide Health Information Network initiative, and of a Fortune 50 Electronic Health Record SaaS initiative.

Sponsoring & hosting of a few dozen of the world's first environmental websites ~1994-97.

Web portal for EcoExpo, a leading 1990s green business tradeshow.

Award-winning "Ecological Design: Inventing the Future" documentary film animation.

Dynamic ecosystem models, and eco/bio/geo scientific visualizations.

Serving on the Board of Advisors for TerraCycle and other green startups.

Public speaking & private mentoring on Clean Technology, Comprehensive Architecture, Sustainable Economics, and Responsible Entrepreneurship.

Technology & innovations to support telecommuting, teleconferencing, teleservices, telecommunications, and telepresence.