



San Joaquin Geological Society

Date: **Tuesday, December 12th, 2023**

Time: **6:00 PM Social Hour**
6:30 PM Dinner
7:00 PM Lecture

Place: **American Legion Hall**
2020 H Street, Bakersfield, CA 93302

PSAAPG Members

\$35 with reservation
\$40 without reservation

Non PSAAPG Members

\$40 with reservation

Full-time Students with ID

FREE!

*** RSVP ***

By: noon Monday,
December 11th, 2023

Register online:

<http://www.SanJoaquinGeologicalSociety.org/>

Pay online or cash/check at the door

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Sources and Uses of US Energy, Can Alternative Energy Replace Carbon?

Presented by: **John Donohue**

Abstract: Although we as a nation have spent \$100s of billion on alternate energy, today our energy needs are met with 80% Carbon, 10% Nuclear & Hydro, 5% Biomass (2% Ethanol, 3% Wood/Waste), 3% Wind, and 2% Solar. Many citizens and politicians believe with significant more investment we will live in a net zero carbon environment in the near future. (10-15 years).

However, it is my contention that this transition:

- Will take much, much longer than some desire
- Will not be anywhere as complete as many desire
- Will cost much more than most believe
- Will require extensive backup systems
- Will have significant shortages if transition too fast

Nuclear Energy should be a major part of this transition. Small Modular Reactors are almost ready to deploy in significant numbers. Fusion challenges will be overcome and be another major source, but timing is truly unknown.

Biography: John Donohue's career spans the entire upstream sector of oil and gas from exploration geophysicist to President of Unocal's North America Division, Spirit Energy. Mr. Donohue began his career with Gulf Oil Corporation in New Orleans before moving to Anchorage as an exploration geophysicist with Unocal Corporation. Over the next twenty years he held executive positions in IT, exploration, asset management, SVP and Division President with Unocal. His exploration accomplishments include the prediction of the Alaskan MUKLUK prospect as a dry hole, (a \$1.4 Billion loss to Sohio and partners in 1982) and a 1 TCFG gas discovery in Southern Louisiana. As president of Unocal's Alaska operations Mr. Donohue expanded into the downstream sector by merging Unocal's Alaska Oil and Gas and Fertilizer Divisions into a single new Division encompassing all of Unocal's Alaskan operations.

Mr. Donohue moved his career in another direction in 2001 as CEO of a startup fuel cell company. However, he returned to the oil and gas sector in 2009 as an independent consultant with Bear Energy. This work took him to Bakersfield, Oklahoma, and West Texas

Mr. Donohue has a BS in physics from Siena College and a MS in geophysics from RPI. Mr. Donohue was a member of the USAF and served 3 years in Eastern Turkey between 1971 and 1974.

December Sponsor:

John Donohue