

# **Board Strategic Development Committee Meeting and Special SMUD Board of Directors Meeting**

Date: Tuesday, June 7, 2022  
Time: Scheduled to begin at 5:30 p.m.  
Location: Virtual Meeting, Online

Powering forward. Together.



# AGENDA

## BOARD STRATEGIC DEVELOPMENT COMMITTEE MEETING AND SPECIAL SMUD BOARD OF DIRECTORS MEETING

Tuesday, June 7, 2022

Scheduled to begin at 5:30 p.m.

Zoom Webinar Link: [Join Board Strategic Development Committee Meeting Here](#)

Webinar/Meeting ID: 160 224 7423

Passcode: 864785

Phone Dial-in Number: 1-669-254-5252 or 1-833-568-8864 (Toll Free)

Pursuant to Government Code section 54953(e) and the Emergency Board Meeting Procedures adopted by the SMUD Board of Directors, the regular Board meeting and other public meetings are currently conducted solely via virtual (online/teleconference) meeting to align with state, local, and federal guidelines for the containment of the coronavirus.

Live video streams and indexed archives of meetings are available at:

[http://smud.granicus.com/ViewPublisher.php?view\\_id=16](http://smud.granicus.com/ViewPublisher.php?view_id=16)

Members of the public may register to provide verbal comments at an upcoming Board or Committee meeting by emailing a request to speak to [PublicComment@smud.org](mailto:PublicComment@smud.org). Please include the date of the meeting, name, and topic or agenda item the requestor wishes to speak on. The request may also be submitted while the meeting is in progress during the standard time for the agenda item or topic. **Pre-registration is strongly encouraged by no later than 3:00 p.m. on the day of the meeting.**

Members of the public may provide written public comments on a specific agenda item or on items not on the agenda (general public comment) by submitting comments via e-mail. Comments may be submitted to [PublicComment@smud.org](mailto:PublicComment@smud.org) and will be placed into the record of the meeting.

Members of the public that are listening to or watching the live stream of a Committee meeting and wish to submit written comments on a specific agenda item as it is being heard may submit their comments, limited to 250 words or less, to [PublicComment@smud.org](mailto:PublicComment@smud.org), noting the agenda item number in the subject line. The Committee Chair may read comments for items on the agenda into the record, in her discretion, based upon such factors as the length of the agenda or the number of e-mail comments received. General public comment for items not on the agenda will not be read into the record but will be provided to the Board and placed into the record of the Board meeting if it is received within two hours after the meeting ends.

This Committee meeting is noticed as a joint meeting with the Board of Directors for the purpose of compliance with the Brown Act. In order to preserve the function of the Committee as advisory to the Board, members of the Board may attend and participate in the discussions, but no Board action will be taken. The Strategic Development Committee will review, discuss and provide the Committee's recommendation on the following:

## **INFORMATIONAL ITEMS**

1. Ed Hamzawi                      Provide the Board with external and internal presentations followed by a panel discussion on **Green Hydrogen and Biofuels programs.**  
  
*Presenters and Panel Participants:*  
Jack Brouwer, Professor of Mechanical and Aerospace Engineering and Director of the National Fuel Cell Research Center (NFCRC) and Advanced Power and Energy Program (APEP), UNIVERSITY OF CALIFORNIA, IRVINE (UCI)  
  
Janice Lin, Founder & Chief Executive Officer, STRATEGEN and President, GREEN HYDROGEN COALITION  
  
Patrick Serfass, Vice President and COO, TECHNOLOGY TRANSITION CORPORATION AND Executive Director, AMERICAN BIOGAS COUNCIL  
  
Sam Wade, Director of Public Policy, RENEWABLE NATURAL GAS COALITION  
  
Ed Hamzawi, Director, Advanced Energy Solutions, SMUD  
  
Joel Ledesma, Director, Power Generation, SMUD  
  
Presentation: 75 minutes  
Discussion: 25 minutes
2. Public Comment
3. Nancy Bui-Thompson        Summary of Committee Direction.  
Discussion: 1 minute

*Pursuant to Resolution No. 20-06-08 adopted on June 18, 2020, Emergency Board Meeting Procedures are in effect:*

*Members of the public may make either a general public comment or comment on a specific agenda item by submitting comments via email. Comments may be submitted to [PublicComment@smud.org](mailto:PublicComment@smud.org). Comments will be provided to the Board and placed into the record of the Committee meeting if it is received within two hours after the meeting ends.*

*Members of the public that are listening or watching the live stream of a Board meeting and wish to comment on a specific agenda item as it is being heard, may submit their comments, limited to 250 words or less, to*

[PublicComment@smud.org](mailto:PublicComment@smud.org). *The Board Committee Chair may read the comments into the record, in her discretion, based upon such factors as the length of the agenda or the number of email comments received. Comments will be provided to the Board and placed into the record of the Committee meeting if it is received within two hours after the meeting ends.*

*Members of the public may register to provide verbal comments at an upcoming Board or Committee meeting by emailing a request to speak to [PublicComment@smud.org](mailto:PublicComment@smud.org). Please include the date of the meeting, name, and topic or agenda item the requestor wishes to speak on. The request may also be submitted while the meeting is in progress during the standard time for the agenda item or topic. **Pre-registration is strongly encouraged by no later than 3:00 p.m. on the day of the meeting.***

*ADA Accessibility Procedures: Upon request, SMUD will generally provide appropriate aids and services leading to effective communication for qualified persons with disabilities so that they can participate equally in this virtual meeting. If you need a reasonable auxiliary aid or service for effective communication to participate, please email [Toni.Stelling@smud.org](mailto:Toni.Stelling@smud.org), or contact by phone at (916) 732-7143, no later than 48 hours before this virtual meeting.*



SSS No. AES22-059

# BOARD AGENDA ITEM

## STAFFING SUMMARY SHEET

Committee Meeting & Date
Strategic Development Committee, June 7, 2022
Board Meeting Date
NA

TO				TO					
1.	Ed Hamzawi	6.	Farres Everly						
2.	Joel Ledesma	7.							
3.	Lora Anguay	8.							
4.	Frankie McDermott	9.	<b>Legal</b>						
5.	Scott Martin	10.	<b>CEO &amp; General Manager</b>						
<b>Consent Calendar</b>		<b>Yes</b>	<input checked="" type="checkbox"/>	<b>No</b> <i>If no, schedule a dry run presentation.</i>	<b>Budgeted</b>	<input checked="" type="checkbox"/>	<b>Yes</b>	<b>No</b> <i>(If no, explain in Cost/Budgeted section.)</i>	
FROM (IPR)				DEPARTMENT			MAIL STOP	EXT.	DATE SENT
Valentino Tiangco & Deepak Aswani				Advanced Energy Solutions R&D			A203	6795	May 20, 2022

**NARRATIVE:**

**Requested Action:** Provide the Board with external and internal presentations followed by a panel discussion on Green Hydrogen and Biofuels programs. Materials presented are for informational purposes only.

**Summary:** Representatives from the Green Hydrogen Coalition, the University of California at Irvine, the American Biogas Council, the Renewable Natural Gas Coalition and SMUD will be presenting a panel discussion on June 7, 2022 regarding hydrogen and biofuels specifically renewable natural gas (RNG). The discussion will cover the importance of hydrogen and RNG that covers both technical and operational aspects of these clean fuels in contributing to the achievement of the 2030 Zero Carbon Plan goals and objectives.

**Board Policy:** SD-4 Reliability; SD-9 Resource Planning; SD-10 Innovation  
*(Number & Title)*

**Benefits:** Increase the Board’s knowledge of hydrogen and RNG including technologies involved, resource potentials, economic aspects, challenges, and benefits of hydrogen and RNG. In addition, the Board will gain understanding about the policies, programs, incentives needed to accelerate production, use, and storage which is essential to meet or exceed the goals and objectives of the 2030 Zero Carbon Plan, address climate protection, air quality, energy resilience and sustainable economic growth needs.

**Cost/Budgeted:** NA

**Alternatives:** Do not hold the panel discussion on hydrogen & Biofuel/RNG.

**Affected Parties:** Enterprise Strategy, Energy Delivery and Operations, Zero Carbon Energy Solutions

**Coordination:** Advanced Energy Solutions R&D, Power Generation, Energy Contracts & Trading, Resource Planning

**Presenters:** Dr. Jack Brouwer, Professor of Mechanical and Aerospace Engineering and Director of the National Fuel Cell Research Center (NFCRC) and Advanced Power and Energy Program (APEP), University of California, Irvine (UCI).  
 Janice Lin, Founder & Chief Executive Officer, Strategen and President, Green Hydrogen Coalition  
 Patrick Serfass, Vice President and COO, Technology Transition Corporation and Executive Director, American Biogas Council  
 Sam Wade, Director of Public Policy, Renewable Natural Gas Coalition  
 Ed Hamzawi, Director, Advanced Energy Solutions, SMUD  
 Joel Ledesma, Director, Power Generation, SMUD



**Jacob (Jack) Brouwer**  
**Professor, Mechanical and Aerospace Engineering**  
**Director, National Fuel Cell Research Center and**  
**Advanced Power and Energy Program,**  
**University of California, Irvine**

Jack Brouwer is Professor of Mechanical and Aerospace Engineering and Director of the National Fuel Cell Research Center (NFCRC) and Advanced Power and Energy Program (APEP) at the University of California, Irvine (UCI).

### **Key Research Area**

Science and engineering of energy conversion with coupled mass, energy and momentum conservation, chemical and electrochemical reaction and heat transfer; steady-state and dynamic modeling of fundamental processes that govern energy conversion devices such as fuel cells, electrolyzers, and gas turbine engines; solid state ionics and electrochemistry; fuel processing; synthesis and experimental investigation of novel fuel cell materials sets; analyses of integrated energy systems comprising fuel cells, photovoltaics, fuel processing, gas turbines, and wind turbines; experimental analyses and model validation; renewable energy; life cycle analyses of energy conversion technologies.

### **Professional Bio**

Through Dr. Brouwer's leadership, NFCRC and APEP are focusing research, education, beta testing, and outreach on high-efficiency, environmentally preferred energy conversion and power generation technology advancement with fuel cell and gas turbine systems as the principal targets. Current research projects address ultra-high efficiency and ultra-low emissions high temperature fuel cell systems, integrated hybrid fuel cell gas turbine systems, renewable power intermittency and integration, battery electric and plug-in hybrid electric vehicle evaluation and infrastructure development, advanced fuel cell and gas turbine dynamic operations, hydrogen and electricity infrastructure development, and power electronics and energy conversion devices for the smart grid. Prior to joining UCI, Dr. Brouwer was on the faculty at the University of Utah, a senior engineer at Reaction Engineering International, and a staff scientist at Sandia National Laboratories.

### **Education**

Jack Brouwer holds a doctor of philosophy degree in mechanical engineering from the Massachusetts Institute of Technology with master and bachelor of science degrees in mechanical engineering from UCI.

**Janice Lin**  
**Founder & Chief Executive Officer**  
**Strategen**

Janice Lin is the Founder and Chief Executive Officer of Strategen, where she has distinguished herself as a leading clean energy changemaker and visionary. She brings more than two decades of experience in clean energy market development and corporate strategy to the role.

Janice has advised a diverse range of clients including renewable energy technology and service providers, developers, large corporations diversifying into clean energy, utilities, investment funds, and non-governmental organizations such as the World Bank. In 2019 Janice founded and serves as President at the [Green Hydrogen Coalition](#), an educational non-profit dedicated to advancing the production and use of green hydrogen in all sectors where it will accelerate the transition to a carbon free energy system. Prior to that Janice co-founded the [California Energy Storage Alliance \(CESA\)](#) in 2009, where she successfully served as Executive Director for ten years, growing the organization into the definitive voice for energy storage in the state and beyond with over 100 active members. Janice also co-founded and for seven years chaired the annual [Energy Storage North America \(ESNA\) conference](#) and expo, the only mission-driven and the leading standalone grid-connected energy storage event in North America. Prior to founding Strategen in 2005, Janice held several senior management positions with PowerLight Corporation (now SunPower Corporation), including Vice President of Product Strategy and Vice President of Business Development. During her tenure at PowerLight, Janice led initiatives in product and new market strategies, business development, regulatory affairs, strategic partnerships, investor relations, and customer finance.

Janice has won numerous industry awards, including the 2019 Entrepreneur of the Year Cleanie® Award; the 2014 NAATBATT Market Development Award; and the ESA 2013 Phil Symons Energy Storage Award. Janice has served on the Electricity Advisory Council of the US Department of Energy, the Board of Advisors for the Energy Policy Initiatives Center (EPIC), and the Energy Storage Committee of Joint Venture Silicon Valley.

Janice holds an MBA from the Stanford Graduate School of Business, a BS from the Wharton School, University of Pennsylvania, and a BA in International Relations from the University of Pennsylvania's College of Arts and Sciences.





**Patrick Serfass**  
**Vice President and COO**  
**Technology Transition Corporation**

Patrick has over 17 years of management, marketing and engineering experience. Throughout this time, he has worked for nearly a dozen energy-focused, non-profit organizations representing the biogas, biomass, biochar, hydrogen, fuel cell and solar industries, plus a variety of Fortune 100 and small businesses. Patrick served as the spokesperson for three organizations and one automaker, appearing on most major TV networks, print, radio and with celebrities. He speaks often at industry conferences and community forums. Patrick also lobbies all branches of the federal government, as well as, state and local legislative and regulatory bodies.

Patrick's early years with TTC focused heavily on merging his engineering degree with his marketing and communications skills to manage and advocate for changes in national building and fire codes and running national education and advocacy campaigns, such as the \$500,000 per year H2 and You program. Patrick has run several competitions for technology development, university design teams and student scholarships. He has authored and served as technical editor for numerous papers and reports, including state and national energy roadmaps, market reports, a renewable natural gas pipeline interconnection guide and more.

Before joining TTC, Patrick worked as an architectural engineer, designed deep ocean vehicle prototypes and worked at the U.S. Department of Energy's Office of Policy and International Affairs. Patrick holds an engineering degree from Dartmouth College, a record for RAAM, the Race Across America (cycling) and serves on the board of the World Biogas Association.



**Sam Wade**  
**Director of Public Policy**  
**Renewable Natural Gas Coalition**

Mr. Wade serves as RNG Coalition's Director of Public Policy. Previously Mr. Wade worked as Chief of the Transportation Fuels Branch at the Californian Air Resources Board, where he oversaw the Low Carbon Fuel Standard (LCFS) program. His private sector experience includes work in energy policy at a major California utility and time with a bioenergy start-up. Mr. Wade holds a B.S. in Mechanical Engineering from U.C. Davis, a M.S. in Mechanical Engineering from the University of Hawaii, and an M.P.A in Environmental Science and Policy from Columbia University.





SSS No.  
BOD 2021-023

# BOARD AGENDA ITEM

## STAFFING SUMMARY SHEET

Committee Meeting & Date 2022
Board Meeting Date N/A

TO	TO
1. Frankie McDermott	6.
2. Farres Everly	7.
3. Scott Martin	8.
4.	9. <b>Legal</b>
5.	10. <b>CEO &amp; General Manager</b>

<b>Consent Calendar</b>		<b>Yes</b>	x	<b>No</b> <i>If no, schedule a dry run presentation.</i>	<b>Budgeted</b>		<b>Yes</b>	<b>No</b> <i>(If no, explain in Cost/Budgeted section.)</i>
FROM (IPR) Nancy Bui-Thompson / Donna Lofton	DEPARTMENT Board Office			MAIL STOP B307	EXT. 5079	DATE SENT 12/21/2021		

**NARRATIVE:**

**Requested Action:** A summary of directives provided to staff during the committee meeting.

**Summary:** The Board requested an on-going opportunity to do a wrap up period at the end of each committee meeting to summarize various Board member suggestions and requests that were made at the meeting in an effort to make clear the will of the Board. The Policy Committee Chair will summarize Board member requests that come out of the committee presentations for this meeting.

**Board Policy:** GP-4 Agenda Planning states the Board will focus on the results the Board wants the organization to achieve.  
*(Number & Title)*

**Benefits:** Having an agenda opportunity to summarize the Board's requests and suggestions that arise during the committee meeting will help clarify what the will of the Board.

**Cost/Budgeted:** N/A

**Alternatives:** Not summarize the Board's requests at this meeting.

**Affected Parties:** Board of Directors and Executive Staff

**Coordination:** Donna Lofton, Special Assistant to the Board

**Presenter:** Nancy Bui-Thompson, Strategic Development Committee Chair

**Additional Links:**

SUBJECT Summary Of Committee Direction	ITEM NO. (FOR LEGAL USE ONLY)
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ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.