**The 1st FEWIEP Workshop**

*June 28-29, 2019*

*UC San Diego, MAE Department*

*Engineering Building 2 (EBU2) Room 549*



On behalf of the Organizing Committee we would like to welcome you to ***the 1st Future Energy, Water, Industry, and Economy Park (FEWIEP) workshop*** to be held at the University of California San Diego during June 28-29, 2019. This workshop represents a follow-up of the FEWIEP White Paper proposal to build an economic corridor along the border states of both sides of the border. During this two-day event, and in partnership with scientists, engineers, investors and developers, we seek to begin the discussion of a plan for the development of the US/Mexico border. Key fundamentals questions will be addressed during the two-day event.

Four *goals of the workshop*, which are expected to be discussed and addressed, are:

**GOAL#1:** Development of the Master Vision and Strategic Plan.

**GOAL#2:** Identification of the region and siting for a 10-mile prototype.

**GOAL#3:** Establishment of a path for sustainability of FEWIEP Institute(s).

**GOAL#4:** Expansion of partnership between academia, private, and government sectors of the US and Mexico.

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**DAY 1: Friday June 28**

8:00 - 8:45AM

**Continental Breakfast**

8:45 – 9:00AM

**Welcome & Introductions: Carlos Coimbra (UCSD) & Luciano Castillo (Purdue)**

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Short Talks #1: The Border- Energy Potential & Mexico Perspective

*Session Chair:*

*Angeline Fournier, Maeva/Mexico, and Jay Gore, Purdue/USA*

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9:00 – 9:15 AM

***Energy Resources & Water Challenge***

**Speaker:** **Luciano Castillo**, Purdue, USA

9:15 - 9:30 AM

***A Bird’s Eye View of the 1,954-mile Border***

**Speaker: Ron Adrian,** ASU, USA

9:30 – 9:45 AM

***The Solar Resource in the SW and the CSP Opportunity***

**Speaker: Carlos Coimbra**, UC San Diego, USA

9:45 – 10:00 AM

***Transmission line constraints and opportunities***

**Speaker: Hanna Greene**, PXiSE Energy Solutions, USA

***10:00 - 10:15 AM Coffee Break***

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10:15 – 11:00 AM

**Power Generation in Mexico**

**Speaker: Fidelmar Molina, ABB Mexico, S.A.**

11:00 – 11:15 AM

**Mexico Energy System & US Integration**

**Speaker: Angeline Fournier, MAEVA Investments, Mexico**

11:15 – 11:30 AM **Key Outcomes & Discussions of Short Talks #1**

**Lead: Cataline Stern**,UNAM, Mexico

**Discussion #1 (GOAL #1): Master Plan Discussion & Charges to Breakout Session**

*Session Chair***: Carlos Coimbra, UC San Diego**

 **Luciano Castillo, Purdue**

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11:30 – 11:45 AM

Example: The Ohio River Bridge Infrastructure & Indiana Toll Road

Speaker: **Steve Schultz**

 A. THE QUESTIONS TO FOCUS

11:45 – 12:00 PM

**Breakout Teams:**

**Example Key Questions:**

**(a) What is the Problem?**

**(b) Who is the Project sponsor?**

12:00 - 1:00 PM **Catered Lunch (on site)**

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**Discussion #1 (continue) and Breakout Session:**  **The Master Plan (Goal #1) and Partnerships (Goal #3)**

**Session Chair:** *Ron Adrian, ASU and Luciano Castillo, Purdue*

###### 1:00 – 2:45 PM

**Outcomes:**

**Short summary & short presentation debriefs (by team leads).**

***2:45 - 3:00 PM Coffee Brea***k

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**Short Talks #2: Project Development & The 10-mile Prototype (Goal #2)**

*Session Chair:*

**Carlos Coimbra,** UC San Diego *and* ***Luciano Castillo****, Purdue*

3:00 - 3:15 PM

***Techno-Economic Analysis***

**Speaker: Jay Gore,** Purdue

3:15 - 3:30 PM

**The New RO: A Game Changer on Water and Energy**

**Speaker: David Warsinger,** Purdue

3:30 – 3:45PM

**Solar Power and Transmission Lines in the SW**

**Speaker: Jan Kleissl,** UC San Diego

**Debriefing & Discussions**

3:45 – 4:00PM

**Key Outcomes & Discussions of Short Talks #2:**

**(a) Major outcomes of short talks**

**(b) Address Key Questions**

**Discussion #3 (GOALS #2 & #3): Project Key Questions & 10 Miles Prototype**

4:00 – 6:00PM

**Establishing Sub-teams & breakout teams for Day 2**

**Lead: Steve Schultz (Purdue) & Luciano Castillo (Purdue)**

**Key Question:**

**(a) Address Key Questions**

**(b) What is the Problem?**

**(c)Who is the Project sponsor?**

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**CLOSING REMARKS:**

Carlos Coimbra, University of California- San Diego

6:00PM **Adjourn (dinner on your own)**

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**DAY 2: Saturday, June 29**

8:00 - 8:45AM Continental Breakfast

**Welcome Day #2:**

8:45 – 9:00 AM Introduction: **Carlos Coimbra,** (UCSD)

**Major outcomes of day 1:** *Ron Adrian, ASU*

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**Discussion #4 (GOAL #2 - #5): Project Development & the 10-Mile Prototype**

*Session Chair***: Carlos Coimbra, UC San Diego**

 **Steve Schultz, Purdue**

**9:00 – 10:30AM**

**Teams: Technology, Policy & Environment, Economy**

**Example Key Questions:**

**(i) Major roadblocks**

**(ii) Key Next Steps**

**(iii) What is the “project”?**

**(iv) Who is the “project sponsor”?**

**10:30 – 10:45AM Coffee Break**

**Discussion #5 (GOAL #2 & #3): Key Partnerships & SUSTAINABILITY FEWIEB**

***10:45AM – 12:00PM***

**Report Outcomes:** Short summaries & short Presentations (by team leads).

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**12:00 - 1:00 PM Lunch**

**Short Talks #3: Major Technical Challenges & Social Issues**

*Session Chair:*

*Catalina Stern, UNAM &* Jay Gore, *Purdue*

1:10 - 1:25 PM

**Solar Energy Along the Border & Key Challenges**

**Speaker:** **Martin Wosnik**, UNH, USA

1:25 – 1:40PM

**The Energy Border Fund**

**Speaker: Eddie Cullen & Derrick Lewis,** Border Freedom Capital Solutions LLC

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**2:30 – 2:45 PM Coffee Break**

**Discussion #6: Address Questions Goals 1-4, Short Summary & Follow Up Event Fall 2019**

1:40 – 4:30PM

**Discussions:**

**Establishing sub-teams & breakout teams**

**Lead: Carlos Coimbra (UCSD) and Luciano Castillo (Purdue)**

**Key Question:**

**(a) Address Key Questions**

**(b) What is the Problem?**

**(c)Who is the Project sponsor?**

**CLOSING REMARKS & FOLLOW-UP ITEMS**

Carlos Coimbra (UC San Diego) Luciano Castillo (Purdue), Angeline Fournier (MAEVA Investments), Ron Adrian (ASU) and Jay Gore (Purdue)