



**AGENDA  
REGULAR WORKSHOP OF THE  
BOARD OF DIRECTORS**

**WEDNESDAY, FEBRUARY 3, 2021  
10:00 A.M.**

**INLAND EMPIRE UTILITIES AGENCY\*  
VIEW THE MEETING LIVE ONLINE AT IEUA.ORG  
TELEPHONE ACCESS: (415) 856-9169 / Conf Code: 932 945 127#**

PURSUANT TO THE PROVISIONS OF EXECUTIVE ORDER N-25-20 ISSUED BY GOVERNOR GAVIN NEWSOM ON MARCH 12, 2020, AND EXECUTIVE ORDER N-29-20 ISSUED BY GOVERNOR GAVIN NEWSOM ON MARCH 17, 2020 AND IN AN EFFORT TO PROTECT PUBLIC HEALTH AND PREVENT THE SPREAD OF COVID-19, THERE WILL BE NO PUBLIC LOCATION FOR ATTENDING IN PERSON.

The public may participate and provide public comment during the meeting by dialing into the number provided above. Alternatively, the public may email public comments to the Board Secretary/Office Manager Denise Garzaro at [dgarzaro@ieua.org](mailto:dgarzaro@ieua.org) no later than 24 hours prior to the scheduled meeting time. Comments will then be read into the record during the meeting.

**CALL TO ORDER OF THE INLAND EMPIRE UTILITIES AGENCY BOARD OF DIRECTORS MEETING**

**FLAG SALUTE**

**PUBLIC COMMENT**

Members of the public may address the Board on any item that is within the jurisdiction of the Board; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Board on any matter, whether or not it appears on the agenda, are requested to email the Board Secretary no later than 24 hours prior to the scheduled meeting time or address the Board during the public comments section of the meeting. Comments will be limited to three minutes per speaker. Thank you.

**ADDITIONS TO THE AGENDA**

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

**1. WORKSHOP**

**A. ENERGY MANAGEMENT**

**B. WATER STORAGE INVESTMENT PROGRAM STATUS UPDATE**

**2. GENERAL MANAGER'S COMMENTS**

**3. BOARD OF DIRECTORS' REQUESTED FUTURE AGENDA ITEMS**

**4. DIRECTORS' COMMENTS**

**ADJOURN**

\*A Municipal Water District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary (909) 993-1736, 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

**Declaration of Posting**

I, Denise Garzaro, Board Secretary/Office Manager of the Inland Empire Utilities Agency\*, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. on the Agency's website at [www.ieua.org](http://www.ieua.org) and at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Thursday, January 28, 2021.



*Denise Garzaro, CMC*

**WORKSHOP  
ITEM**

**1A**

# Energy Management Workshop



Pietro Cambiaso, P.E.  
Deputy Manager of Strategic Planning and Resources  
February 2021

# Overview

- Current Energy Issues
  - Public Safety Power Shutoff (PSPS)
  - Electricity rate trends
- IEUA planning and mitigation efforts
  - Energy efficiency
  - Energy portfolio
  - Future proposed projects
- IEUA goals and objectives



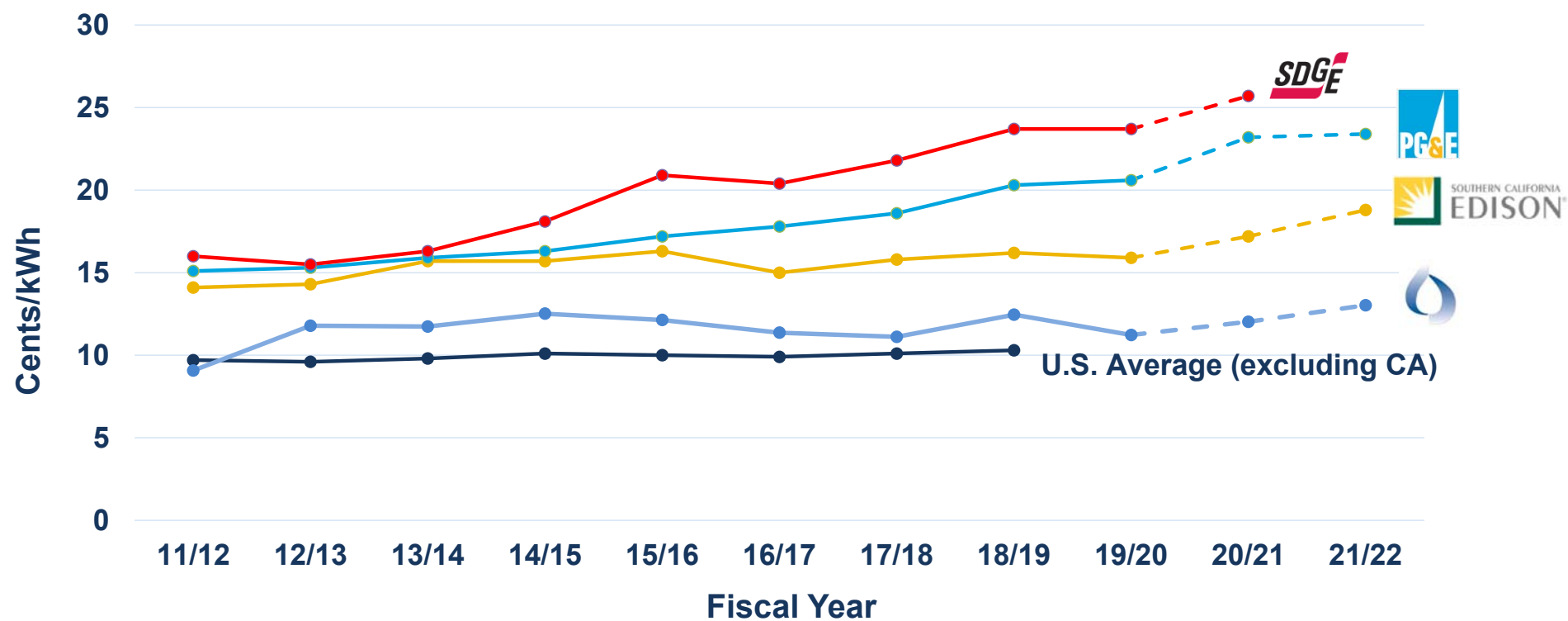
# Public Safety Power Shutoff

“To help protect customers and communities during extreme weather events, Southern California Edison (SCE) may shut off electric power for public safety in an effort to prevent a wildfire”

- 2020-22 SCE Wildfire Mitigation Plan
  - Situational awareness
  - Vegetation management
  - Enhanced overhead inspection
  - Grid design and system hardening
  - Emerging technologies



# Electricity Rate Trends



# Public Safety Power Shutoff Emergency Preparedness

- IEUA enhanced collaboration with SCE
  - Updated emergency contact information
  - Advanced notice (7 days to 1 day ahead)
- Standby generators proper operation
  - Maintenance and periodic testing
  - Fuel resupply
- Staffing
- On-site generation microgrid long term solution





# Energy Efficiency

Effectively manage and reduce energy consumption

- Energy monitoring and benchmarking
- Facility audits
- Energy retrofits
- Treatment process optimization
- Sustainable design and procurement



# Energy Efficiency Projects

Completed Projects Since 2015	Energy Savings (kWh/year)	Cost Savings (\$/year)	Incentive
Pump Rehabilitation	3,119,443	\$369,168	\$299,478
Operational Optimization	957,459	\$119,495	\$86,707
Lighting Retrofit	1,158,635	\$126,331	\$104,677
<b>Total</b>	<b>5,235,537</b>	<b>\$614,994</b>	<b>\$490,861</b>

**Cost Savings  
=  
9% IEUA  
Energy  
Budget**

# Renewable Energy Portfolio and Resource Management 2020



Connected Capacity

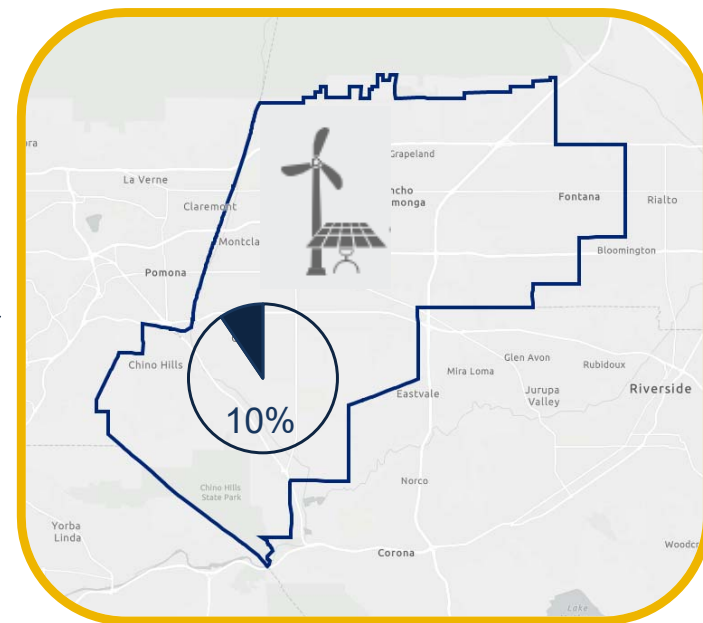
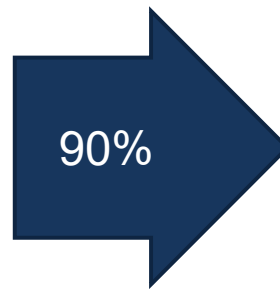
# Electricity Procurement (Current)



44%



46%



FY 19/20 Procurement

# Electricity Procurement (Proposed)



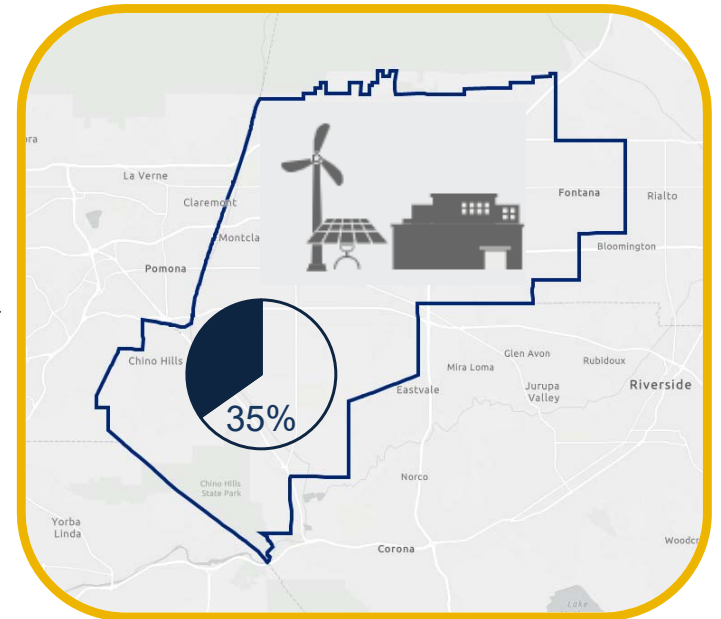
32%



33%



65%



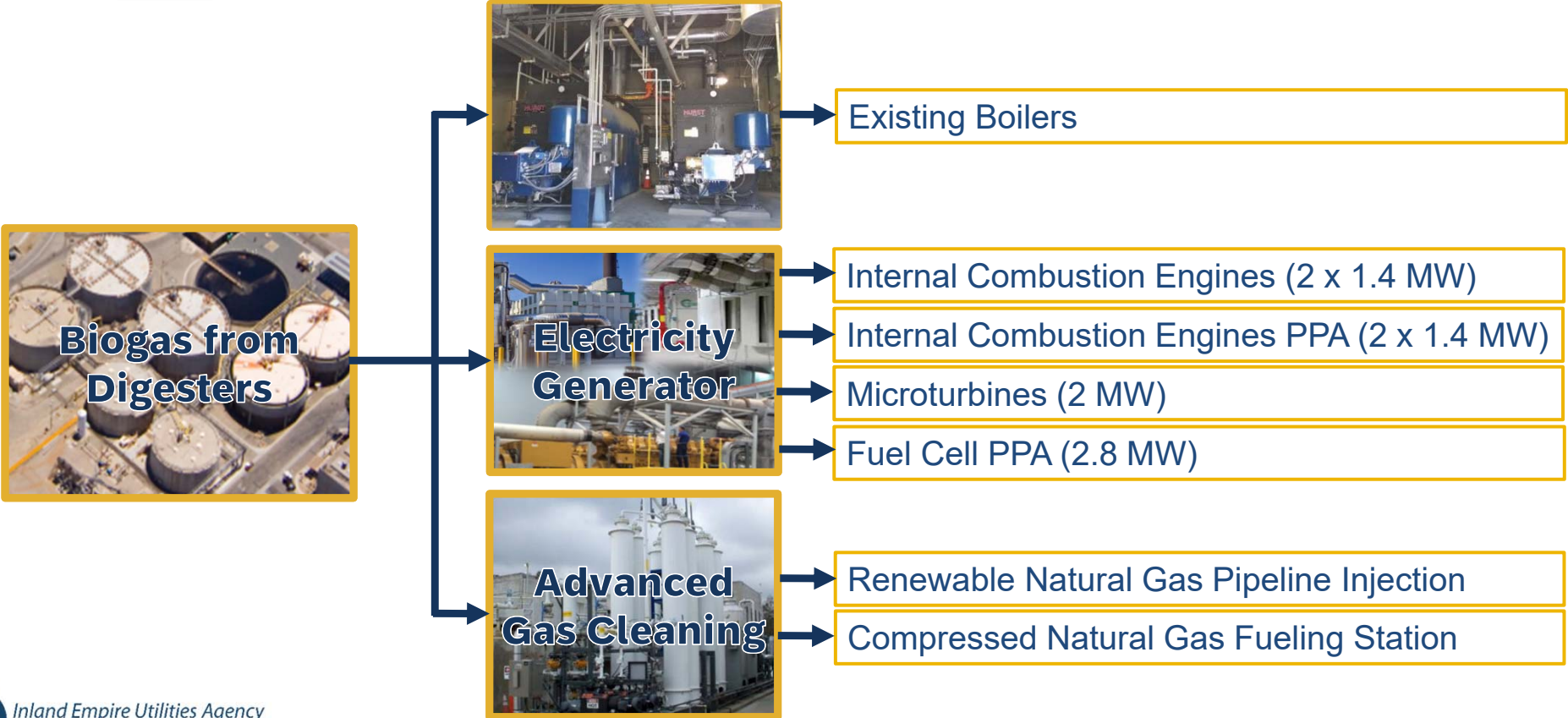


# Energy Storage Update (Year 1)

- RP-1, RP-5, and CCWRF Battery Storage
  - Average demand reduction = 330 kW
  - Net cost savings = \$55,000
- RP-4 and IERCF Battery Storage and Solar
  - Average demand reduction = 330 kW
  - Solar generation = 2,255,000 kWh
  - Net cost savings = \$87,000
- O&M provider change from Advanced Microgrid Solutions (AMS) to Enel X



# Beneficial Use of Biogas – RP-1 Feasibility Study



# Beneficial Use of Biogas – Heat for Plant Use

- Existing Boilers
  - Fulfill digester heat requirements
  - 50% beneficially used – 50% to flare
  - Electricity purchase from
    - Grid
    - Solar PPA





# Beneficial Use of Biogas – Electricity Generator

- Internal Combustion Engines (2 x 1.4 MW)
  - High electricity production and flexibility
  - Heat recovery
  - Proven technology
- Microturbines (2 MW)
  - Low electricity efficiency
  - Low life cycle
- Fuel Cell (2.8 MW)
  - High electricity efficiency low flexibility
  - Heat recovery
  - Stringent gas cleaning system requirements

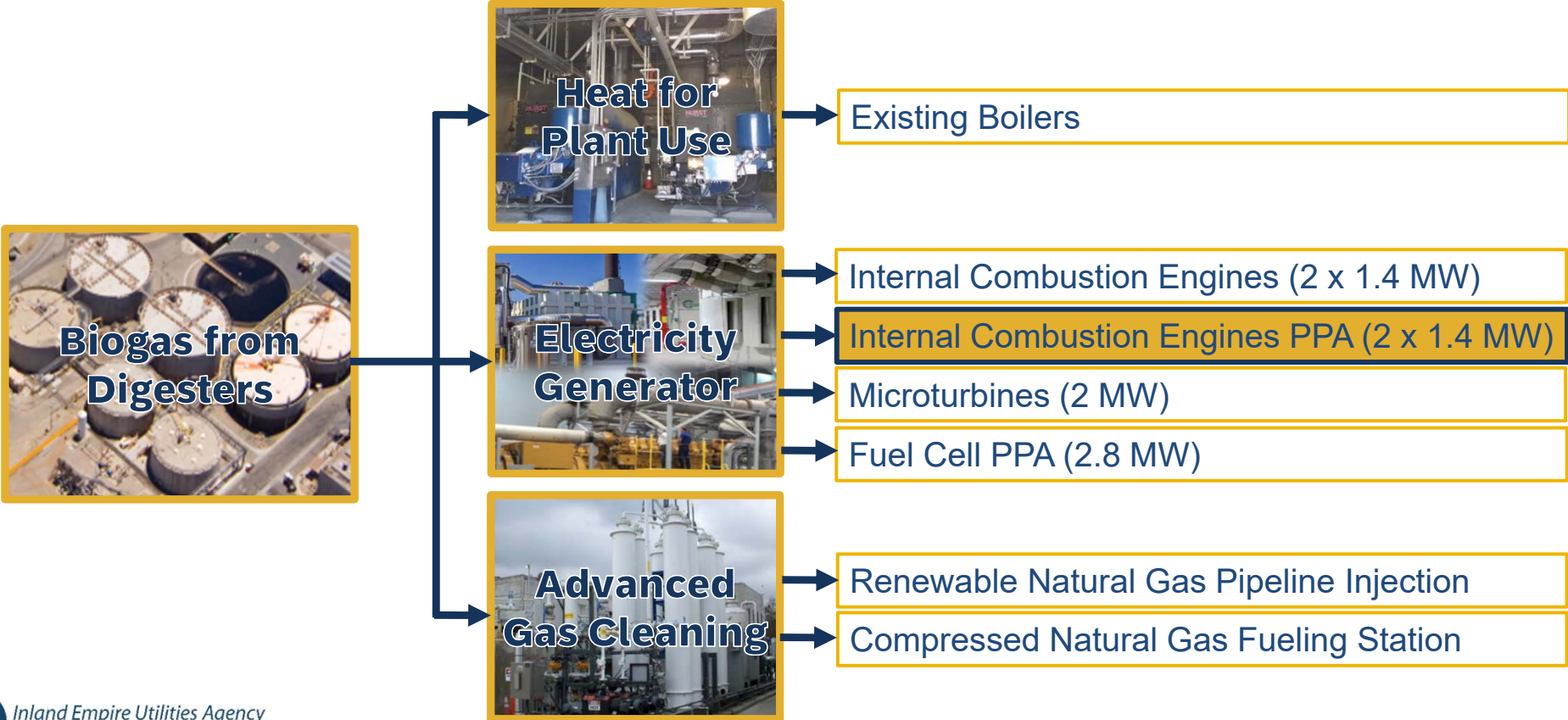


# Beneficial Use of Biogas – Advanced Gas Cleaning

- Renewable Natural Gas Pipeline Injection
  - No electricity production and no on-site use
  - Renewable natural gas and environmental attributes sale
  - High capital and interconnection costs
- Compressed Natural Gas (CNG) Fueling Station
  - No electricity production and no on-site use
  - CNG and environmental attributes sale
  - High capital cost



# Beneficial Use of Biogas – RP-1 Feasibility Study



# RP-1 Feasibility Study Recommendation

- Internal Combustion Engine Power Purchase Agreement (PPA)
  - Electricity cost savings
  - Digester heating
  - Reduce flaring
  - No up-front capital costs
  - No additional staff
  - Long-term electricity cost stability and predictability
- Issue Request for Proposal for Internal Combustion Engine
  - IEUA owned
  - Power Purchase Agreement



## Other Feasibility Studies

- Floating solar
- Headquarter carport solar
- Compressed natural gas sale
- Biomethane sale via pipeline injection
- In-line hydroelectric power generation
- Flexible recycled water pumping - Electric Power Research Institute
- Overgeneration pilot project – SCE
- Aeration basin off-gas analyzer – SCE, University of California Irvine



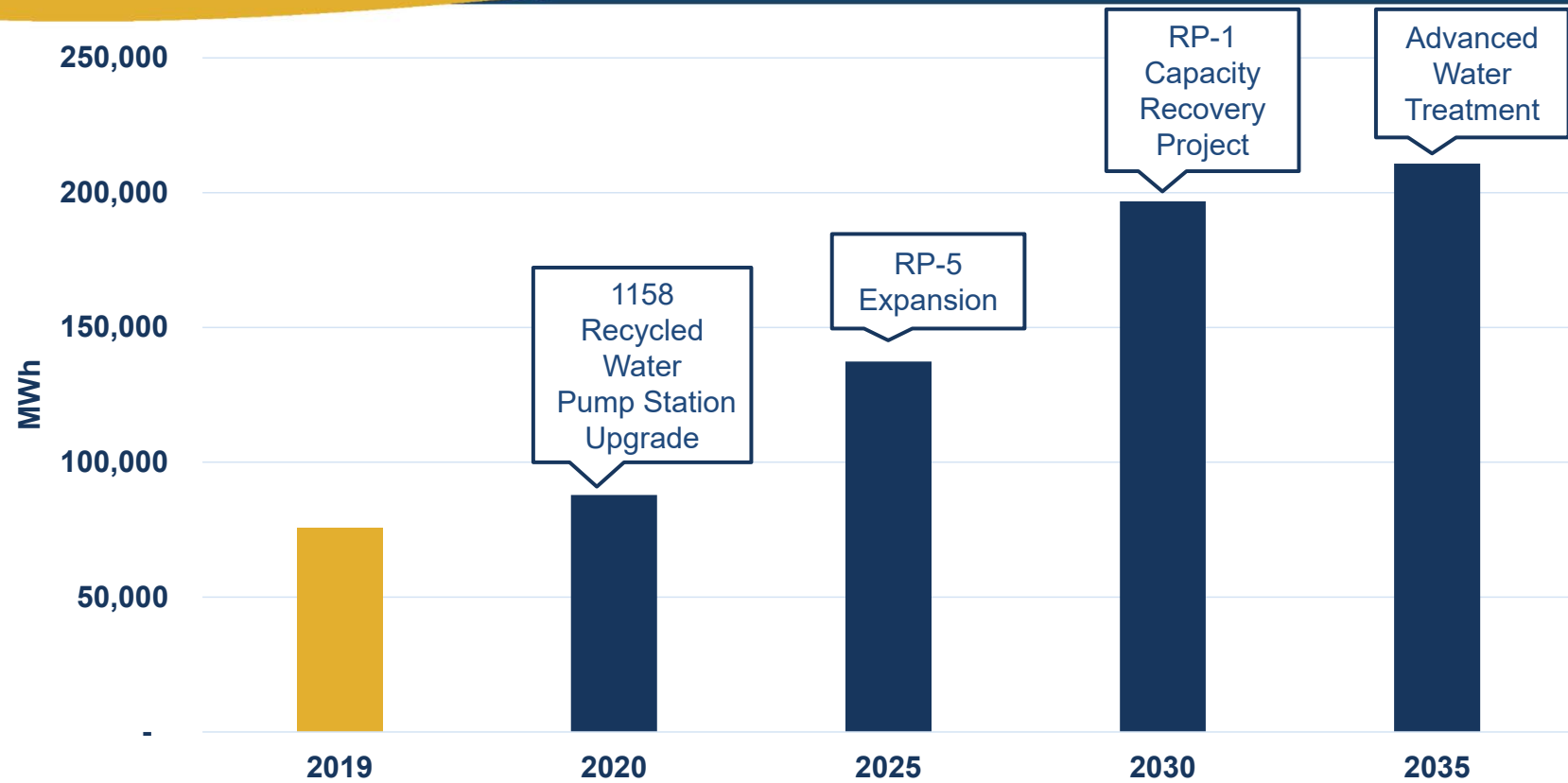


## Next Steps

- RP-1 Internal combustion engine – Request for Proposal
- RP-5 Solids Handling Facility – Feasibility Study
- Energy efficiency projects implementation
- Electric vehicle charging station installation
- Electricity purchase negotiation
- Bill auditing and SCE rates evaluation
- Greenhouse gas emissions monitoring
- RP-5 Renewable Energy Efficiency Project (REEP) engines retrofit

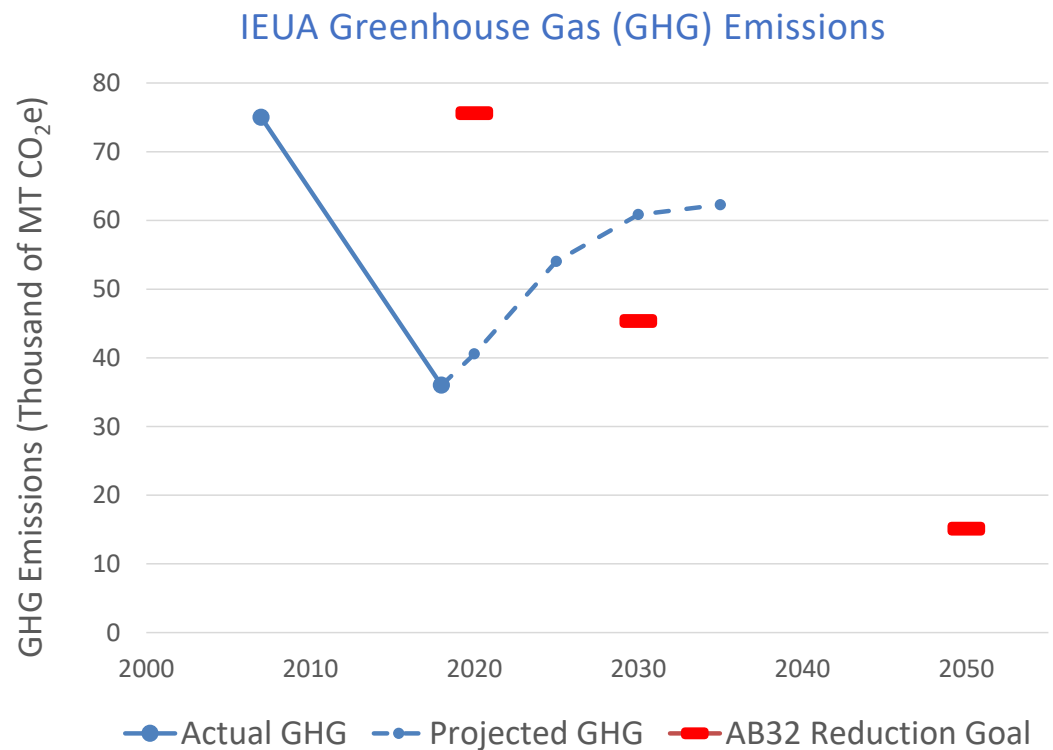


# Agency Power Usage Projections



# Greenhouse Gas Reductions Goals

- California Global Warming Solutions Act of 2006 (AB 32)
  - 1990 levels by 2020
  - 40% below 1990 levels by 2030
  - 80% below 1990 levels by 2050
- 2019 IEUA Climate Change Action Plan
  - 2007 levels by 2020
  - 40% below 2007 levels by 2030
  - 80% below 2007 levels by 2050

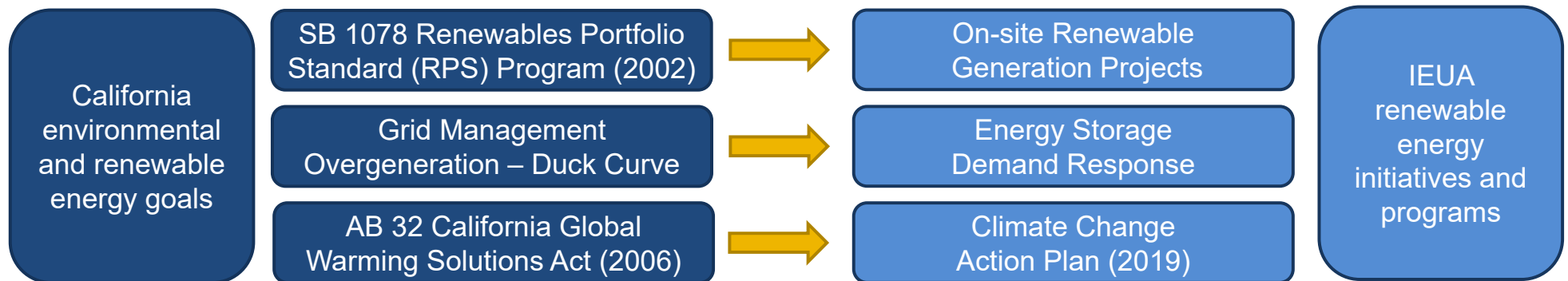




# IEUA Business Goals

## Energy Management Objective

*“IEUA will effectively manage energy resources including renewable energy initiatives and programs to achieve statewide environmental and renewable energy goals, and stabilize future costs.”*



**WORKSHOP  
ITEM**

**1B**



# Water Storage Investment Program

## Status Update



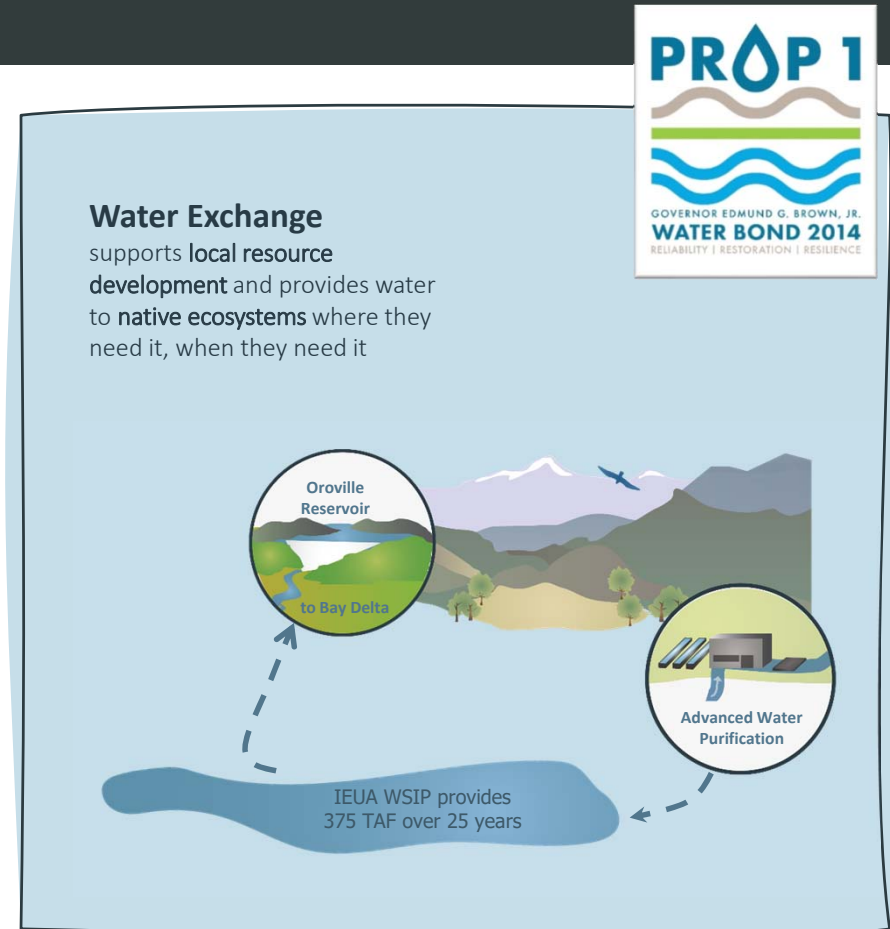
February 2021



# Water Storage Investment Program (WSIP)

- 2017: IEUA submitted WSIP application
  - 15 TAFY Advanced Water Purification
  - 15 TAFY Injection and storage of advanced purified RW
  - 20+ new groundwater wells
  - New interconnection with Metropolitan Water District
- 2018: \$207M conditional funding awarded for Delta ecosystem benefits
- Jan 1, 2022: Deadline to secure funding

TAFY: Thousand Acre Feet per Year

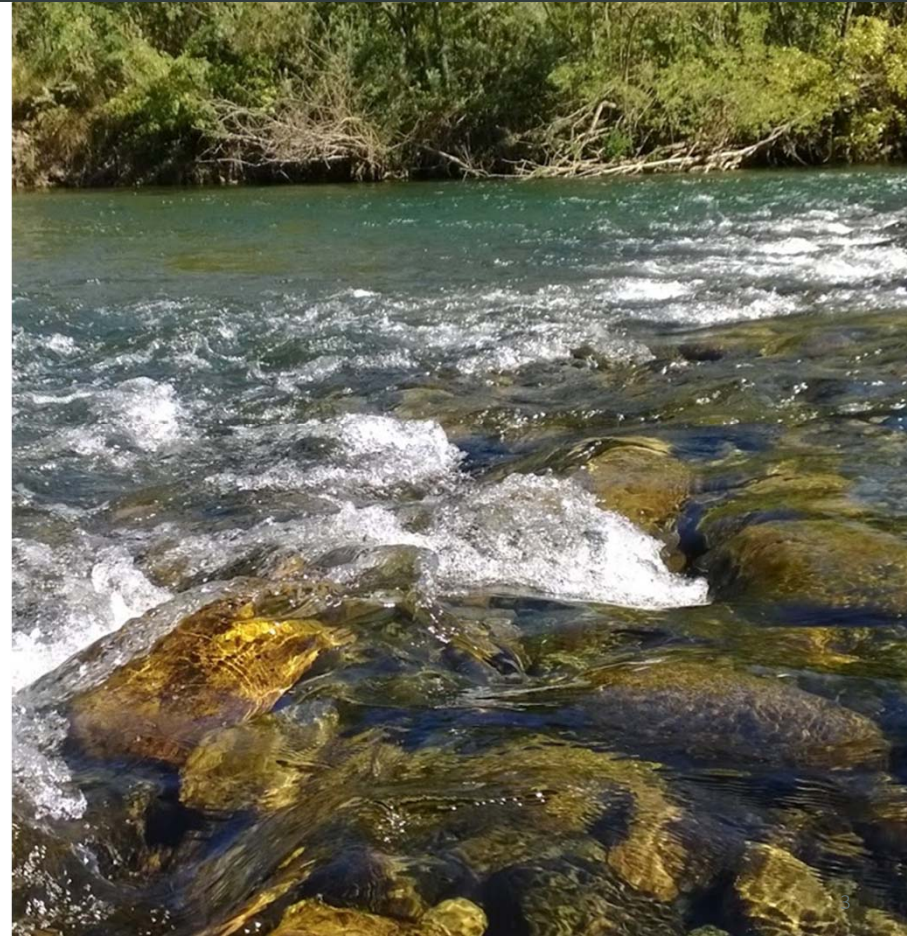




# WSIP Status Update

Aug 2020 IEUA Board direction:

- Re-structure program to address local agency concerns
- **“Leave no stone unturned”** before making decision on \$207M funding







# Stakeholder Discussion Status



- Local Agencies
- Metropolitan Water District
- California Water Commission



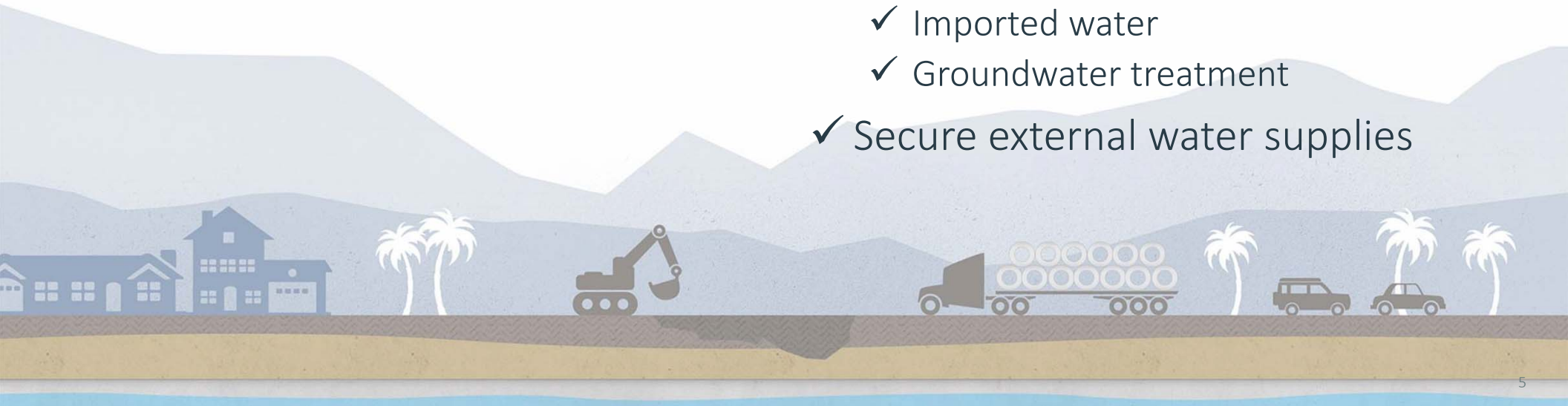
# Program Goals & Objectives

## No-WSIP

- ✓ Meet IEUA permit compliance for recycled water

## WSIP

- ✓ Proactively meet IEUA permit compliance for recycled water
- ✓ Provide increased reliability:
  - ✓ Imported water
  - ✓ Groundwater treatment
- ✓ Secure external water supplies



# Funding Alternatives

- **WSIP and No-WSIP costs** funded by loans and rates
- **No-WSIP (\$306M – permit compliance)**
- **WSIP (\$650M – permit compliance & water supply reliability)**
  - \$207M + \$5M from California Water Commission
  - Eligible for Federal funding from WIIN Act
  - Investigating potential funding partnership with Metropolitan







# Program Benefits & Issues

## No-WSIP

### Benefits:

- ☒ Maintains current use of recycled water
- ☒ Lower initial capital cost

### Issues:

- ☐ Water resource reliability concerns not addressed
- ☐ Unknown future opportunities for substantial grants
- ☐ Does not address extended imported water interruptions

## WSIP

### Benefits:

- ☒ Maximizes use of recycled water
- ☒ Provides increased imported water reliability
- ☒ Facilities available for local use in non-call years
- ☒ \$212M in grant and eligible for federal grants

### Issues:

- ☐ Dedicates water for 25 years to Metropolitan
- ☐ Accelerates construction of facilities
- ☐ Local O&M costs



# Timeline & Upcoming Milestones

## Apr 2021

Develop conceptual  
**terms of partnership**  
with Metropolitan

## Fall 2021

**Develop WSIP Delta  
Operations** agreement

**Develop term sheet** for  
local operations and  
groundwater exchange

**IEUA Board Action** (Nov)

## Dec 2021

**Deadline to submit Final  
Feasibility Report** to  
secure funding by  
Jan 1, 2022



# Discussion

