AGENDA

MEETING
OF THE
BOARD OF DIRECTORS

WEDNESDAY, JUNE 7, 2017
10:00 A.M.

INLAND EMPIRE UTILITIES AGENCY
AGENCY HEADQUARTERS
BOARD ROOM
6075 KIMBALL AVENUE
CHINO, CALIFORNIA 91708

CALL TO ORDER
OF THE INLAND EMPIRE UTILITIES AGENCY BOARD OF DIRECTORS
WORKSHOP 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 complete and submit to the Board Secretary a “Request to Speak” form which are available on the table in the Board Room. Comments will be limited to five 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. ACTION ITEM

A. SAWPA CELESTE CANTÚ RETIREMENT EVENT
2. CONSENT ITEM
   A. ADOPTION OF RESOLUTION NO. 2017-6-12, COMMENDING COUNCIL MEMBER GLENN DUNCAN FOR HIS 25 YEARS OF SERVICE WITH THE CITY OF CHINO
3. WORKSHOPS
   A. ENERGY MANAGEMENT PLAN WORKSHOP #2
   B. ENGINEERING AND CONSTRUCTION MANAGEMENT PROGRAM UPDATES
4. 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, April Woodruff, Board Secretary 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. at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Thursday, July 1, 2017.

April Woodruff
Date: June 7, 2017

To: The Honorable Board of Directors

From: P. Joseph Grindstaff  
General Manager

Subject: SAWPA Celeste Cantú Retirement Event

RECOMMENDATION

It is recommended that the Board of Directors contribute up to $2,000 towards the Santa Ana Watershed Project Authority (SAWPA) event to recognize General Manager Celeste Cantú, who will be retiring after 10 years of service.

BACKGROUND

During her tenure as General Manager of SAWPA, Ms. Cantú’s visionary leadership brought statewide recognition to SAWPA’s One Water One Watershed (OWOW), an integrated regional watershed plan to solve problems on a regional scale and give all water stakeholders a voice in the planning process. As a member of the SAWPA, Joint Powers Authority (JPA), Inland Empire Utilities Agency, along with other JPA members were asked to contribute to a retirement event honoring SAWPA’s General Manager Celeste Cantú. All costs not covered by private and third party donations will be asked to be funded equally by all member agencies of an amount not-to-exceed $2,000.

The Agency’s General Counsel confirmed the Board has discretionary authority on what constitutes a public purpose and contribute a reasonable amount. Supporting an event to commemorate an employee’s years of public service will help to ensure continued recruitment and retention of qualified and competent employees (Jarvis v. Cory, 28. Cal.3d 562, 578).

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

If approved, the Agency’s contribution will be supported by the General Manager’s contingency fund.
Date: June 7, 2017

To: The Honorable Board of Directors

From: P. Joseph Grindstaff, General Manager

Subject: Adoption of Resolution No. 2017-6-12, Commending Council Member Glenn Duncan for his 25 Years of Service with the City of Chino

RECOMMENDATION

It is recommended that the Board of Directors adopt Resolution No. 2017-6-12, commending Council Member Glenn Duncan for his 25 years of public service with the City of Chino.

BACKGROUND

Council Member Glenn Duncan was elected to the Chino City Council in 1992, and has represented the City of Chino on various committees including the Ontario Airport Noise Abatement Strategy Committee, Water Facilities Authority, Southern California Association of Governments, League of California Cities-Legislative Task Force, West Valley Vector Control, and San Bernardino County Employees' Retirement Association Board of Directors. Council Member Duncan has also served as Council Liaison to the Chino Valley Fire District, Chino Valley Unified School District, Planning Commission, and the Chino Valley Chamber of Commerce.

Council Member Duncan has founded and served as President of FTS Financial Services, where he was a Financial Consultant. Council Member Duncan is committed to giving back to the Chino Community by having served as President of the Chino Neighborhood House, President of the Rotary Club of Rancho del Chino, and Treasurer and Finance Committee Chairman of the Chino Valley YMCA Board of Directors.

This Resolution will be formally presented, along with best wishes, to Council Member Glenn Duncan at his Retirement Luncheon on Thursday, June 15, 2017.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.
RESOLUTION NO. 2017-6-12

RESOLUTION OF THE BOARD OF DIRECTORS OF INLAND EMPIRE UTILITIES AGENCY*, SAN BERNARDINO COUNTY, CALIFORNIA, COMMENDING COUNCIL MEMBER GLENN DUNCAN FOR 25 YEARS OF SERVICE WITH THE CITY OF CHINO

COUNCIL MEMBER GLENN DUNCAN

WHEREAS, Council Member Glenn Duncan is retiring from the City of Chino after 25 years of exemplary service; and

WHEREAS, Council Member Glenn Duncan was elected to the Chino City Council in 1992; and

WHEREAS, Council Member Glenn Duncan has represented the City of Chino on various committees including the Ontario Airport Noise Abatement Strategy Committee, Water Facilities Authority, Southern California Association of Governments, League of California Cities-Legislative Task Force, West Valley Vector Control, and San Bernardino County Employees’ Retirement Association Board of Directors; and

WHEREAS, Council Member Glenn Duncan has also served as Council Liaison to the Chino Valley Fire District, Chino Valley Unified School District, Planning Commission, and the Chino Valley Chamber of Commerce; and

WHEREAS, Council Member Glenn Duncan has founded and served as President of FTS Financial Services, where he was a Financial Consultant; and

WHEREAS, Council Member Glenn Duncan is committed to giving back to the Chino Community by having served as President of the Chino Neighborhood House, President of the Rotary Club of Rancho del Chino, and Treasurer and Finance Committee Chairman of the Chino Valley YMCA Board of Directors; and

WHEREAS, Council Member Glenn Duncan is a devoted husband to his wife, Cindy and a loving father to their children and grandchildren.

NOW, THEREFORE, BE IT RESOLVED, that the Inland Empire Utilities Agency’s Board of Directors does hereby publicly extend its most sincere appreciation to Council Member Glenn Duncan for his 25 years of dedicated service as a Council Member of the City of Chino. His exemplary work ethic and dedication to the City and the residents of Chino are to be commended.
ADOPTED this 7th day of June, 2017.

Steven J. Elie, President of the Inland Empire Utilities Agency* and of the Board of Directors thereof

ATTEST:

Jasmin A. Hall, Secretary/Treasurer of the Inland Empire Utilities Agency* and of the Board of Directors Thereof
STATE OF CALIFORNIA

COUNTY OF SAN BERNARDINO

I, Jasmin A. Hall, Secretary/Treasurer of the Inland Empire Utilities Agency*, DO HEREBY CERTIFY that the foregoing Resolution being No. 2017-6-12, was adopted at a regular Board Meeting on June 7, 2017, of said Agency by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

______________________________
Jasmin A. Hall
Secretary/Treasurer of the Inland Empire Utilities Agency* and of the Board of Directors thereof

*A Municipal Water District
Energy Management Workshop #2
Long Term Planning: RP-1

June 2017
Energy Management Workshop #1 (April 2017)

- Goals and Objectives
- Energy Management Plan
- Long Term Planning RP-5
Energy Management

IEUA Mission Statement:

"... providing essential services in a regionally planned and cost effective manner...producing high-quality renewable products such as recycled water, compost and energy."

IEUA Business Goal, adopted December 2016:

"To **effectively manage energy resources** including renewable energy initiatives and programs to achieve statewide environmental and renewable energy goals, and stabilize future costs."

Inland Empire Utilities Agency
A Municipal Water District
Case Study – Regional Plant No. 1
RP-1 Non-Labor O&M Expenses – Fiscal Year 15/16

- Energy: 33%
- Chemicals: 31%
- Biosolids Hauling and Disposal: 27%
- Materials: 9%

Inland Empire Utilities Agency
A Municipal Water District
Existing Renewables at RP-1

Solar

Fuel Cell
Regional Plant No. 1 (Current, 24 MGD)

Goals

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<table>
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<tr>
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<tbody>
<tr>
<td>Peak Power Independence</td>
<td>No</td>
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<tr>
<td>Grid Interdependence</td>
<td>No</td>
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<tr>
<td>Carbon Neutrality*</td>
<td>28%</td>
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- **Plant demand**
  - Recycled Water Pumps: 3.9 MW
  - Treatment Process: 3.1 MW

- **Renewable energy generated**
  - Solar: 0.6 MW

- **Renewable energy capacity**
  - Fuel Cell

*Includes Renewable Portfolio from energy purchases (Shell)*
Long Term Planning for RP-1

- RP-1 plant capacity recovery to 40 MGD
  - Start of full design: Summer 2017
  - Ten Year Capital Improvement Plan (TYCIP) timeline: complete construction by 2030
- Treatment processes included:
  - Membrane Bioreactor
  - Solids improvement
  - New odor control systems
- Expect biogas production increase
California Wastewater Treatment Facilities
Gas Production & Utilization*

Facilities Not Generating Biogas 40%
Facilities Generating Biogas 60%

- Flare 28%
- Heat for Digester 22%
- Engine 34%
- Turbine/Microturbine 9%
- Fuel Cell 6%
- Pipeline Injection <1%
- Transportation Fuel <1%

*Source: California Association of Sanitation Agencies (CASA), 2015
Beneficial Use of Biogas at RP-1 (2030, 40 MGD)*

Option 1: Electricity Generation

Option 2: Transportation Fuel and/or Pipeline Injection to Natural Gas Line

* Listed in no particular order
Beneficial Use of Biogas at RP-1
(2030, 40 MGD)*

Option 1: Electricity Generation

* Listed in no particular order
Option #1: Electricity Generation (2030, 40 MGD)

Examples of Electricity Generators

- Fuel Cell
- Engine
- Microturbine
Option #1: Electricity Generation (2030, 40 MGD)
Option #1: Electricity Generation (2030, 40 MGD)

Biogas from Digesters → Gas Cleaning → Electricity Generator

- Power to RP-1
- Heat for Plant Use
Option #1: Electricity Generation Considerations (2030, 40 MGD)

**Pros**
- Beneficial use of biogas (minimize flaring)
- Renewable energy source
- Contributes to meeting IEUA Energy Management Plan Initiatives

**Cons**
- Regulatory uncertainty from local air district
- Competitive energy market
Option #1: Electricity Generation with Energy Efficiency* (2030, 40 MGD)

**Goals**
- Peak Power Independence: No
- Grid Interdependence: Yes
- Carbon Neutrality**: 74%

**Plant demand**
- Recycled Water Pumps: 6.8 MW
- Treatment Process: 0.0 MW

**Renewable energy generated**
- Electricity Generator: 3.6 MW
- Solar: 0.0 MW

**Renewable energy capacity**
- Electricity Generator: 3.6 MW
- Solar: 0.0 MW

*Energy efficiency potentially achieved through potential treatment process optimization
** Includes Renewable Portfolio from energy purchases (Shell)
Option #1: Electricity Generation with Energy Efficiency* (2030, 40 MGD)

Goals
- Peak Power Independence: Yes
- Grid Interdependence: Yes
- Carbon Neutrality**: 87%

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

*Energy efficiency potentially achieved through potential treatment process optimization
** Includes Renewable Portfolio from energy purchases (Shell)
Beneficial Use of Biogas at RP-1 (2030, 40 MGD)*

Option 2: Transportation Fuel and/or Pipeline Injection to Natural Gas Line

* Listed in no particular order
Option #2: Transportation Fuel and/or Pipeline Injection to Natural Gas Line (2030, 40 MGD)
Option #2: Transportation Fuel and/or Pipeline Injection to Natural Gas Line (2030, 40 MGD)

1. Biogas from Digesters
2. Gas Cleaning
3. Advanced Gas Cleaning & Compression

Output

- Renewable Natural Gas (RNG)
- Transportation Fuel
- Injection to Natural Gas Pipeline
Option #2: Renewable Natural Gas (RNG)

**Pros**
- Environmental attributes
- Revenue stream to reinvest for onsite renewables
- Possible long term contracts
- 100% beneficial use of biogas (minimize flaring)
- Align with State and local air quality goals

**Cons**
- Environmental attributes market volatility (risk)
- Does not contribute to meeting all IEUA Energy Management Plan Initiatives
- Energy Market Price

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2015 Market Pricing
Renewable Identification Number (RIN) Price
Low Carbon Fuel Standard (LCFS) Price
Natural Gas Price
Option #2: RNG with Energy Efficiency*
(2030, 40 MGD)

Goals
- Peak Power Independence: No
- Grid Interdependence: Yes
- Carbon Neutrality**: 51%

![Diagram showing energy usage](image)

- **Plant demand**: 7.3 MW
  - Recycled Water Pumps: 3.6 MW
  - RNG: 2.8 MW
  - Treatment Process: 0.9 MW

- **Renewable energy generated**: 0.6 MW
  - Solar: 0.6 MW

- **Renewable energy capacity**: 0.6 MW
  - Solar: 0.6 MW

*Energy efficiency potentially achieved through potential treatment process optimization
** Includes Renewable Portfolio from energy purchases (Shell)
RNG and Purchase Natural Gas for Fuel Cell with Energy Efficiency* (2030, 40 MGD)

Goals
- Peak Power Independence: No
- Grid Interdependence: Yes
- Carbon Neutrality**: 31%

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*Energy efficiency potentially achieved through potential treatment process optimization
** Includes Renewable Portfolio from energy purchases (Shell)
RNG and Purchase Natural Gas for Fuel Cell with Energy Efficiency* (2030, 40 MGD)

**Goals**
- Peak Power Independence: Yes
- Grid Interdependence: Yes
- Carbon Neutrality**: 42%

**Plant demand**
- 7.3 Megawatts (MW)
  - Recycled Water Pumps
  - Treatment Process

**Renewable energy generated**
- 7.3 Megawatts
  - Potential Projects (Solar, Natural Gas Electricity Generator, etc.)
  - Fuel Cell
  - Solar

**Renewable energy capacity**
- 7.3 Megawatts
  - Potential Projects (Solar, Natural Gas Electricity Generator, etc.)
  - Fuel Cell
  - Solar

*Energy efficiency potentially achieved through potential treatment process optimization
**Includes Renewable Portfolio from energy purchases (Shell)
Next Steps

- Continue to pursue cost effective energy projects that meet Agency Goals
- RNG Feasibility Study – Public Private Partnership
- Provide annual energy update to the Board Update Energy Management Plan in 2018
- Research alternative renewable resources (onsite/partnerships, etc.)
Engineering and Construction Management Program Updates
Department Drivers
Our Guiding Light

- Implement IEUA’s TYCIP

- Project Management (PM) from design through construction – PM Integration

- Compliance with the project’s goal, approved plans, specifications, and standards

- Support Operations and Maintenance in minor construction, safety, and emergency projects
Current Capital Program Snapshot

- Ten Year Capital Improvement Budget: $700M
- Current FY 2016/17 Budget: $65M (120 Active)
  - Pre-Design/Design: 41
  - Construction: 21
  - Warranty: 12
  - Other: 46
Engineering Strategic Planning Update

- Project Management Documents
  - Charters
  - Change Management
- Staffing development
  - Project Management Institute professional certification  In Progress
  - Full project management (design through construction)  In Progress
  - Budget/Schedule integration  In Progress
- Integrated non-traditional delivery methods
  - Prequalification
  - Design-Build
  - Minor Construction
  - Staffing Resources  In Progress
- Building Relationships
  - Partnering with Contractors and Consultants
Program Goals

Goals
- Budget
- Schedule
- Communication
- Change Management

On Time and Right
- Project Delivery

Late and Right
- Late and Wrong

On Time and Wrong

Late and Wrong
Project Creation

TYCIP/Annual Budget
- Funded through approved TYCIP/Annual Budget

Operations and Maintenance Requests
- Funded through approved Fiscal Year appropriation

Emergencies
- Funded through FY Emergency Project budgets
Project Phases

- Inception
- Charter
- Design Kick Off
- Design/Permitting
- Bid and Award
- Construction
Project Phases

CHARTER BENEFITS
- Focus on define scope early
- Identifies risks that could impact project success
- Full team buy in early
- Reduces design and construction changes
Project Phases

CONSULTANT SELECTION
- Qualification based
- Team review and concurrence
- Fee envelope opened after selection

Inception → Charter → Design Kick Off → Design/Permitting → Bid and Award → Construction
GOVERNMENT CODE 1090
- No financial interest
- Case law – Applies standard to Consultants
- Limits opportunity for competitive proposals
Project Phases

1. Inception
2. Charter
3. Design Kick Off
4. Design/Permitting
5. Bid and Award
6. Construction
Project Phases

1. Inception
2. Charter
3. Design Kick Off
4. Design/Permitting
5. Bid and Award
6. Construction
Project Phases – Budget Gates

BUDGET GATES
- Key points of budget validation
- Opportunity to refine costs based on project development
Engineering Strategic Planning - Next Steps

• Asset Management Plan
  – Integration with Ten Year Capital Improvement Plan

• Continuity of Documents
  – Front End Specifications
  – Design Consultant Request for Proposal
  – Design-Build Specification

• Board Goals for Engineering/Construction