AGENDA

LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

REGULAR FINANCE COMMITTEE MEETING

Thursday, July 24, 2014 ● 1:00 p.m.

LA-RICS Headquarters, Large Conference Room
2525 Corporate Pl., Suite 200, Monterey Park, CA 91754

AGENDA POSTED: Friday 18, 2014
Complete agendas are made available for review on the Authority's website at http://www.la-rics.org.

I. **CALL TO ORDER**

II. **ANNOUNCE QUORUM – Roll Call**

III. **APPROVAL OF MINUTES**

1. December 16, 2013, LA-RICS Special Finance Committee Meeting Minutes.
2. January 9, 2014, LA-RICS Special Finance Committee Meeting Minutes.
3. January 30, 2014, LA-RICS Special Finance Committee Meeting Minutes.
4. February 27, 2014, LA-RICS Regular Finance Committee Meeting Minutes.
5. March 5, 2014, LA-RICS Special Finance Committee Meeting Minutes.
6. April 1, 2014, LA-RICS Special Finance Committee Meeting Minutes.
7. April 24, 2014, LA-RICS Regular Finance Committee Meeting Minutes.
8. May 22, 2014, LA-RICS Regular Finance Committee Meeting Minutes.

[ATTACHMENT 1]

IV. **NEW BUSINESS**

V. **OLD BUSINESS**

1. ACTION ITEM: Approve Recommendation of the FY 2014-15 Budget to the LA-RICS JPA Board of Directors.

[ATTACHMENT 2]

VI. **PUBLIC COMMENT**

VII. **ADJOURNMENT AND NEXT MEETING**

Thursday, August 28, 2014

Members of the public are invited to address the LA-RICS FINANCE COMMITTEE on any item on the agenda prior to action by the FINANCE COMMITTEE on that specific item. Members of the public may also address the FINANCE COMMITTEE on any matter within the subject matter jurisdiction of the FINANCE COMMITTEE. The FINANCE COMMITTEE will entertain such comments during the Public Comment period. Public Comment will be limited to three (3) minutes per individual for each item addressed, unless there are more than ten (10) comment cards for each item, in which case the Public Comment will be limited to one (1) minute per individual. The aforementioned limitation may be waived by the FINANCE COMMITTEE's Chair.

(NOTE: Pursuant to Government Code Section 54954.3(b) the legislative body of a local agency may adopt reasonable regulations, including, but not limited to, regulations limiting the total amount of time allocated for public testimony on particular issues and for each individual speaker.)

Members of the public who wish to address the FINANCE COMMITTEE are urged to complete a Speaker Card and submit it to the FINANCE COMMITTEE Secretary prior to commencement of the public meeting. The cards are available in the meeting room. However, should a member of the public feel the need to address a matter while the meeting is in progress, a card may be submitted to the FINANCE COMMITTEE Secretary prior to final consideration of the matter.

It is requested that individuals who require the services of a translator contact the FINANCE COMMITTEE Secretary no later than the day preceding the meeting. Whenever possible, a translator will be provided. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend.
(323) 881-8291 or (323) 881-8295

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MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

SPECIAL FINANCE COMMITTEE MEETING

Monday, December 16, 2013 ● 1:00 p.m.
LA County Fire Department Headquarters, Training Room 26
1320 N. Eastern Ave., Los Angeles, CA 90063

Official Voting Members Present:

Ed Roes, City of Los Angeles Administrative Office
Stephen Sotomayor, Chair, representative for City of Los Angeles Police Department
Jan Takata, County of Los Angeles Chief Executive Office
Doug Cline, representative for County of Los Angeles Fire Department
Olivia Valero, representative for City of Long Beach
Joe Leonardi, representative for Los Angeles County Police Chiefs Association
Daniel Jordan, representative for California Contract Cities Association
Eric E. Tsao, representative for City of Torrance, At Large #1
Erick Lee, representative for Culver City, At Large #2
Greg Simay, Vice Chair, representative for City of Burbank, At Large #3
Steve Smith, representative for City of Covina, At Large #4

Representatives For Official Voting Members Present:

None

Others Present:

Pat Mallon, LA-RICS
Susy Orellana-Curtiss, LA-RICS
Amanda Drukker, LA County Counsel

Official Voting Members Absent:

Ronnie Villanueva, representative for the City of Los Angeles Fire Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst
Dave Culver, representative for County of Los Angeles Sheriff's Department
Manal Dudar, representative for County of Los Angeles Department of Health Services
James Alther, representative for the LAUSD Police Department
David Lantzer, representative for Los Angeles Area Fire Chiefs' Association

AGENDA ATTACHMENT 1

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Chair Stephen Sotomayor took roll call, quorum was reached.

III. APPROVAL OF MINUTES –

1. November 21, 2013, LA-RICS Special Finance Committee Meeting Minutes.

Motion to Amendment

Committee Member Erick Lee stated that he recommends that the consultant go back and explore looking at how local government is going to be considered as part of the funding plan, using that same survey mechanism that was previously done capturing the inclusion of different departments.

Committee Member Joe Leonardi called the 1st motion and Committee Member Greg Simay called the 2nd. **MOTION APPROVED**.

IV. REPORTS –

LMR

Executive Director Mallon stated that LA-RICS has realized that there are issues that have an environmental impact on the LMR system. There were hopes to meet the CEQA requirements with a Mitigated Negative Declaration (MND), but in consideration of some of the sites and the proximity of biologically sensitive areas along the National Forest and the Pacific Ocean, there is a risk of a significant delay to the project by moving forward with an MND, and going through that 6-8 month process. If any one site results in a challenge it stops the process, then LA-RICS would have to go back and start over again with an environmental impact report. Therefore instead of investing such time in an effort that may need to be reinitiated, it is best to move forward with an environmental impact report, including sites that may not be included in the list of 88 today.

There are some sites that are going to have problems with height restriction. For example there is site in San Pedro that is near a FAA radio site and installation of a tower would interfere with the radar sweep. Therefore that site needs to be dropped down to a 60 ft. range (where it is today) and will have impact on coverage. LA-RICS would have to look at some sites that could increase coverage in that area.

LA-RICS is working with Motorola on those problematic sites and are looking into identifying some alternate sites. This will result in a delay to the LMR project, but s time well invested.

LTE

Executive Director Mallon stated that LA-RICS suspended negotiations for a 10-day period while they worked on a proposal issues and is back in negotiations today. It looks like negations will conclude after the beginning of new year.

Committee Member Simay stated that four more months for the EIR process and in the end there will be 88 sites cleared, plus alternative sites that may be needed. Executive Director Mallon stated that if 10-12 additional sites are identified then an EA of 100 sites could be done. If those sites are not ultimately used, there is no impact. This would not affect grant spending, although there is one area of concern and that is UASI 10' grant funds. There were plans for advance purchases of equipment for the "Site on Wheels" that will be used during the construction phase of

the project as well as beyond the end of the construction project. The site on wheels was not part of the original plan, but was needed in order to continue coverage without interruption. There will be a change in the required scope of service, but not to the degree of relief that would be required to stand up a temporary transmission tower. This will result in an increase to the contract value.

V. NEW BUSINESS – None

VI. OLD BUSINESS –

2. Discussion Item: Cost Allocation Working Paper.
Executive Director introduced Derek Wong, PMC Finance Lead Consultant, who provided a status report on the LA-RICS Draft Funding Plan. It is anticipated that the report will be completed by January 2014. Jurisdiction cost numbers are not yet included in the report. Mr. Wong reviewed the attached Draft Cost Allocation Working Paper and asked if there were any questions.

Concerns over the "flexibility" in the cost allocation formula arose, but Mr. Wong stated that the unknown variables impact the module. Until better data is incorporated it is not concrete information or data.

A question came up regarding the cost. The whole system was questioned, and to if cost had been broken down by region. The second part to that question was if one jurisdiction overlaps another jurisdiction, would they share the cost of the region vs. the entire system? Mr. Wong stated that this was something that had not been addressed yet. It is up to the committee what values are placed in the model.

Mr. Wong continued to go through the Draft Cost Allocation Working Paper.

Chair Sotomayor stated that the next Special Finance meeting will be on Thursday, January 9, 2014. The Regular Finance meeting on Thursday, January 23, 2014, will be rescheduled, since there will be a 3rd Stakeholder meeting and another one will be late in January 2014.

VII. PUBLIC COMMENT – None

VIII. ITEMS FOR FUTURE DISCUSSION BY THE COMMITTEE

Workshop: LTE & LMR Funding Plans and Project Phasing
Workshop: Contract Cities and the Cost Allocation Model

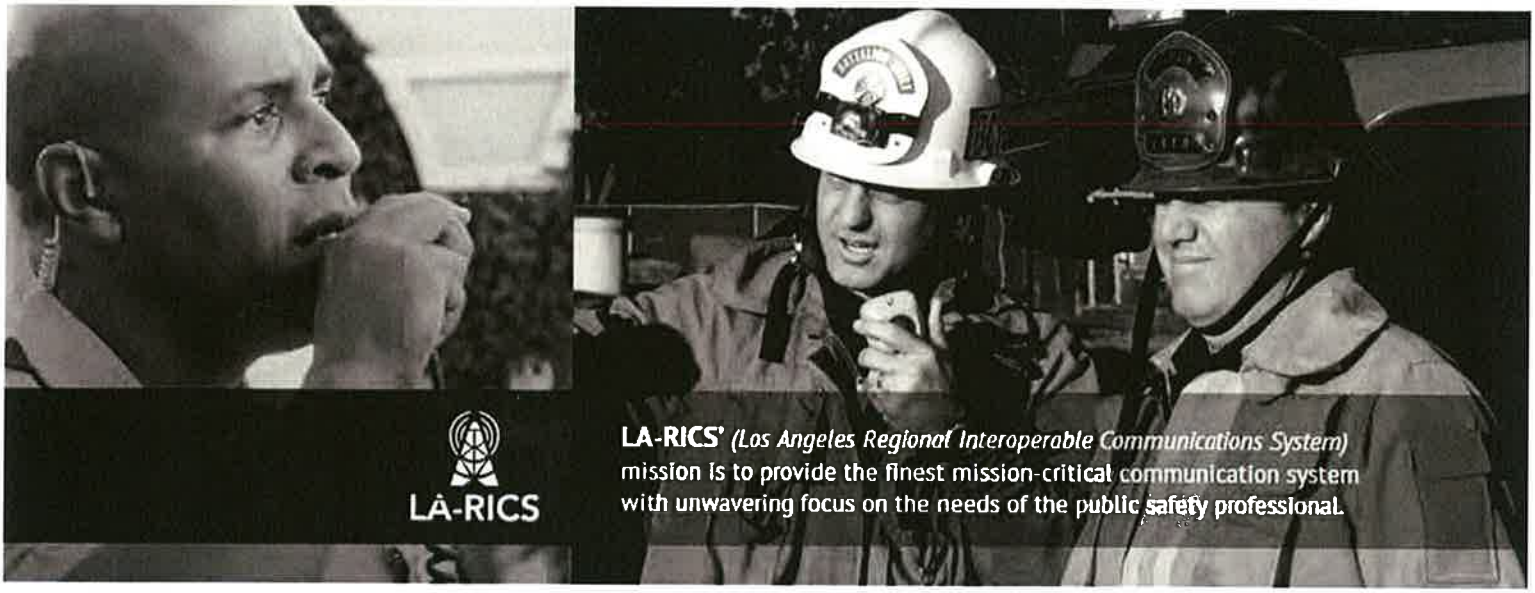
VIII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 2:52 p.m. by consensus.

The next special meeting is tentatively scheduled for Monday, January 9, 2014, at 1:00 p.m., location to be determined.

LA-RICS

COST ALLOCATION WORKING PAPER



DRAFT

DECEMBER 13, 2013

PREPARED BY: PMC

AGENDA ATTACHMENT 2

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Introduction

The Los Angeles Regional Interoperable Communication System (LA-RICS) is a modern, integrated wireless voice and data communication system designed to serve law enforcement, fire service, and health service professionals throughout Los Angeles County. LA-RICS is a joint powers authority ("Authority") with 86 members including the County of Los Angeles, 82 cities, two school districts, and the University of California, Los Angeles.

The new system will include voice (land mobile radio, or LMR) and broadband data (long-term evolution, or LTE) components. LA-RICS will provide day-to-day communications within agencies and allow seamless interagency communications for responding to routine, emergency, and catastrophic events. Although a significant portion of system costs will be covered through grant funding, the Authority must identify a method to distribute its remaining cost among its members. LA-RICS established a Finance Committee to address these issues, among other financial considerations, and subsequently retained Pacific Municipal Consultants (PMC) to develop a methodology and funding plan.

This Cost Allocation Working Paper presents the work completed to date to identify this method through the following sections:

- Section 1. Funding Plan Overview: Explains the Funding Plan requirements; includes Funding Plan goals and an overview of covered costs.
- Section 2. Background Research: Reports cost allocation methods for similar interoperable communication systems.
- Section 3. Member Outreach: Identifies member characteristics and opinions about possible Funding Plan methods and variables. Includes results from the survey conducted in November 2013 and stakeholder meeting #1.
- Section 4. Cost Allocation Method: Presents the draft cost allocation method; includes outstanding policy and technological considerations.
- Section 5. Data Monitoring: Describes a process for independent verification of data inputs to the variables that derive the cost shares.
- Appendices: Detailed results of member outreach.

Section 1. Funding Plan Overview

Requirements

The LA-RICS Joint Powers Agreement Section 2.05(b)(2) notes that it is the responsibility of the Board of Directors to "develop and implement a funding plan (the 'Funding Plan') for the construction and ongoing operation of a shared voice and data system." Section 5.01 Adoption of Funding Plan, provides additional clarity for this responsibility:

> *It is a critical goal of the Authority to develop a Funding Plan that identifies funding sources and mechanisms, including a development schedule and phasing plan, which will permit the maximum feasible participation by Members. The Funding Plan shall be descriptive as to the contributions required from Members.*
>
> *Prior to committing resources for the construction of the System, a proposed Funding Plan as designated in Section 2.05(b)(2) shall be developed.*

Section 5.01 of the agreement also requires that the Funding Plan "…shall be accompanied by a description of the System, and reports and studies to allow Members to determine the System capability, cost, financing and the effects on individual Members."

LA-RICS has completed work in support of achieving these requirements. The LA-RICS Board of Directors established a Finance Committee and Cost Allocation Working Group (CAWG) to assist in these efforts and they have identified possible Funding Plan variables and discussed potential technological and political challenges central to the Funding Plan. The Finance Committee and CAWG agendas and outcomes have been reviewed and incorporated into this Cost Allocation Working Paper.

Funding Plan Components and Goals

LA-RICS has received favorable status through receipt of significant grant funding for the LMR and LTE systems. These grant funds cover a substantial portion of the costs associated with constructing the physical infrastructure that supports both systems. The Funding Plan is responsible for proposing an allocation of the costs not covered by the grant funding including LMR operations and maintenance, LMR lifecycle capital replacement, LTE hard cost matches, LTE soft cost matches, LTE operations and maintenance, and LTE lifecycle capital replacement (Section 4 provides more detail about Funding Plan costs).

The methodology for the distribution of system costs between member agencies and their acceptance is a major challenge to the successful completion of the LA-RICS project. LA-RICS aims to develop a Funding Plan that, as a goal, seeks to retain membership in the Authority and includes the following characteristics:

- A cost allocation method that distributes costs based on communication-related metrics that have been vetted by Authority members.
- A cost allocation method whose outcomes are directly related to system usage and can be tracked by member agencies.
- Flexibility in the cost allocation formula whose primary inputs can be modified over time as warranted to account for improved data and changing conditions over time among the participating jurisdictions.
- A cost allocation method that provides a degree of predictability by members for their share of costs.

Section 2. Background Research

Comparable interoperable communication systems were researched to identify existing finance plan strategies. Select allocation methods and variables from these comparable systems, as vetted by Authority member agencies (Section 3), have been incorporated in the draft Funding Plan. This section describes interoperable systems reviewed during the development of this working paper.

Existing Interoperable Communication Systems

The following communication systems and their respective finance plans were reviewed for comparability with the LA-RICS system. This section includes a description of each system as well as a text box that highlights each system's finance strategy. Following the system descriptions, Table 1 presents a summary matrix for easy comparisons.

San Diego Association of Governments (SANDAG) Automated Regional Justice Information System (ARJIS)

ARJIS is a JPA that was developed to share law enforcement data among agencies throughout San Diego and Imperial Counties. ARJIS is currently used by local, state, and federal agencies in the two California counties. According to the website, "the secure ARJISnet intranet integrates more than 6,000 workstations throughout the 4,265 square miles of San Diego County. There are more than 11,000 authorized users generating more than 35,000 transactions daily." Although the system uses a high speed data system, it is not clear whether it is comparable to the proposed LA-RICS LTE system.

System name: *ARJIS*

Technology type: *High speed data (closest to LTE)*

Finance strategy: *SANDAG and criminal justice member jurisdictions pay based on their population relative to the total regional population; ARJIS member agencies pay based on the volume of data they use.*

ARJIS has three forms of member assessments: SANDAG member assessments, criminal justice member assessments, and ARJIS member assessments. SANDAG and criminal justice member assessments are based on population estimates for each member agency relative to the total regional population. ARJIS member assessments are based on the volume of data each member agency uses.

Bay Area Regional Interoperable Communications System Authority (BayRICS)

BayRICS is a JPA that is working toward providing Bay Area first responders with the ability to share text, graphics, real-time video, and other mobile "apps" designed specifically for public safety. BayRICS has 13 member agencies including seven counties, three cities, and several "hub" city groups (which include all

System name: *BayRICS*

Technology type: *LTE*

Finance strategy: *Monthly membership fees plus charges for each unit on the network; local infrastructure and connectivity is the responsibility of each city.*

incorporated cities in the seven-county Bay Area). Although still in planning stages, BayRICS adopted a finance plan for the LTE component, also known as BayWEB. The BayWEB finance plan calls for member agencies to pay an annual membership fee and for members that own sites to be responsible for ongoing site costs. Members must purchase their own devices as well as pay a service fee to the operating contractor and a service fee to BayRICS for each device on the system. Back office connectivity costs are the responsibility of each agency.

Orange County's 800MHz Countywide Coordinated Communications System (CCCS)

Orange County's CCCS is a JPA that provides interoperable LMR communications services to law enforcement, fire services, public works, and lifeguard/marine safety departments in Orange County. Annual operating expenses and system maintenance are split between the County and the 22 member cities. The County pays a large proportion of annual expenses. Member jurisdictions pay the remainder of the expenses based on their portion of system-wide radios.

System name: *CCCS*

Technology type: *LMR*

Finance strategy: *The County covers a certain amount of operating costs; member city costs are apportioned according to the number of radios they have relative to the number of total radios in the system.*

Countywide Integrated Radio System (CWIRS)

CWIRS is an interoperable LMR system used by Los Angeles County agencies (with the exception of the sheriff and fire departments). The system allows County departments to communicate internally and across departments in day-to-day operations. The system includes a bridge contact to patch into fire and law enforcement communications. The County charges agencies system use costs based on the number of radios they use.

System name: *CWIRS*

Technology type: *LMR*

Finance strategy: *Members pay a fee based on the number of radios they use.*

Interagency Communications Interoperability System (ICIS)

ICIS is a JPA with seven member cities (Beverly Hills, Burbank, Culver City, Glendale, Montebello, Pasadena and Pomona). The ICIS system is a decentralized network of LMR components purchased and constructed by individual cities and linked together through a microwave network for regional coverage. Member agencies provide radio infrastructure and frequencies compatible with the existing ICIS network and equipment and pay annual member dues. Subscriber agencies are those do not own any network infrastructure and must contract with either ICIS directly or a member agency to utilize the network. A subscriber agency pays a per-radio fee to the member that is hosting

System name: *ICIS*

Technology type: *LMR*

Finance strategy: *Member agencies pay annual fees; affiliates pay a per-radio fee that varies based on roaming status.*

them and a per-radio fee to ICIS. Affiliate agencies do not actively use the system, but may roam on the system as needed to provide mutual aid to an ICIS member of subscriber agency.

Marin Emergency Radio Agency (MERA)

System name: *MERA*

Technology type: *LMR*

Finance strategy: *Members pay a percentage of annual operating expenses based on a formula that factors the jurisdiction's area, population, and agency types.*

MERA is a JPA that provides essential LMR communications among local and regional public entities including fire, police, and public works departments, special districts, transportation agencies, and other emergency responders in Marin County. The system was designed for routine communications within agencies and emergency communications across agencies during mutual aid and disaster operations in the county. To cover operation and maintenance costs, member agencies pay a percentage of annual system expenses. The percentage is calculated using a formula that considers the jurisdiction's area, population, and agency types.

Michigan Public Safety Communications Systems (MPSCS)

System name: *MPSCS*

Technology type: *LMR*

Finance strategy: *Members pay an annual fee per radio that varies depending on the number of talkgroups the member wants to access; members that maintain their own infrastructure are eligible for system credits; system is heavily subsidized by the state of Michigan.*

The MPSCS is the largest public safety communications system in North America and provides interoperable voice communications for many of Michigan's first responders and state government agencies including fire, health, law enforcement, public safety, transportation, transit, schools, and private public safety and health groups. The MPSCS owns most of the infrastructure; member agencies own some infrastructure as well. Member agencies are responsible for maintaining their own infrastructure, but may be eligible for credits by doing so. The entire system is heavily subsidized by the state of Michigan which lowers overall cost to the users.

For LMR, user fees are assessed on a per-radio per-year basis with four tiers of annual radio costs and the MPSCS provides a tiered access approach that allows agencies to determine how much they would like to use their radios in day-to-day operations. The base level has no cost, but base level talkgroups are only activated during emergencies. The other three levels are incrementally more expensive per radio, but the increase in cost corresponds with an increase in talkgroup access.

Table 1. Finance Strategy Comparison Table

	System Type	Finance Strategy
ARJIS	*High speed data (closest to LTE)*	*SANDAG and criminal justice member jurisdictions pay based on their population relative to the total regional population; ARJIS member agencies pay based on the volume of data they use.*
BayRICS	*LTE*	*Monthly membership fees plus charges for each unit on the network; local infrastructure and connectivity is the responsibility of each city.*
CCCS	*LMR*	*The County covers a certain amount of operating costs; member city costs are apportioned according to the number of radios they have relative to the number of total radios in the system.*
CWIRS	*LMR*	*Members pay a fee based on the number of radios they use.*
ICIS	*LMR*	*Member agencies pay annual fees; subscribers pay a per-radio fee to members and to ICIS.*
MERA	*LMR*	*Members pay a percentage of annual operating expenses based on a formula that factors the jurisdiction's area, population, and agency types.*
MPSCS	*LMR*	*Members pay an annual fee per radio that varies depending on the number of talkgroups the member wants to access; members that maintain their own infrastructure are eligible for system credits; system is heavily subsidized by the state of Michigan which lowers system cost to users.*

Section 3. Member Outreach

Introduction

The proposed LA-RICS will provide improved radio and broadband communication for public safety providers throughout the greater Los Angeles region. LA-RICS was formed in 2009 under an interagency Joint Powers of Authority which consists of representatives from cities, municipalities, public safety agencies, and other public agencies in the region. In October 2013, LA-RICS hired Pacific Municipal Consultants (PMC) to create a proposed Funding Plan for the LA-RICS system. Authority stakeholder engagement and participation is a crucial part of the funding analysis and in the development of an equitable Funding Plan. To that end, an initial survey was sent to fire and police chiefs, as well as city managers, of each Authority member city. The list of agencies was provided by LA-RICS. The survey included questions intended to better understand each agency's current communication system and communication needs. Sixty-five survey responses were received, the results of which have been incorporated into a summary report that is being used as a resource in developing the proposed financing plan. Highlights of the survey are included later in this section.

To share the results of the survey and get additional feedback from Authority members, the first of three rounds of stakeholder meetings was held on November 20 and November 21, 2013, in the cities of Whittier and Glendale, respectively. The intention of hosting two meetings on different days and in separate locations was to increase Authority member participation. The date and location details of each meeting were as follows:

Wednesday, November 20, 2013	Thursday, November 21, 2013
2:00 p.m. to 4:00 p.m. Whittier Community Center, Room 1 7630 Washington Avenue Whittier, CA 90602	10:00 a.m. to 12:00 p.m. Fire Station 21 421 Oak Street Glendale, CA 91204

In total, 35 people attended the Wednesday meeting and 37 people attended the meeting held on Thursday. The attendees were varied and made up of police and fire chiefs, city managers or their assistants, and other city financial personnel. Several consultants also attended; therefore, not everyone in attendance participated in the small group discussions or activity presented further on in this document.

LA-RICS Authority Stakeholder Meeting

Upon entering the meeting, attendees were greeted and asked to sign in. Each person was provided a name badge, an agenda and comment card (Appendix B), a comparable projects informational sheet (Appendix C), and a "frequently asked questions" document (Appendix D). A presentation was given to all attendees followed by small group discussions and an activity based on potential variables that could be used within the proposed Funding Plan.

Purpose

The purpose of the first round of stakeholder meetings was to:

- Provide information about the proposed Funding Plan project (project intent, survey results, demographics maps, next steps, etc.).
- Present information about fair share cost strategies across other, similar systems.
- Listen and collect input from participants on their likes and dislikes, their ideas for fair share cost allocation, and possible barriers to participating in the proposed LA-RICS system.
- Create an environment where all attendees have opportunities to participate and provide input.

Presentation

The presentation given to participants described the intent of the project, reviewed the work and research completed to date, and presented the results of the surveys completed by member agencies. The complete PowerPoint presentation can be found in Appendix A; however, highlights of the survey results included:

- Over half of the survey respondents' services are not provided by Los Angeles County.
- Of the jurisdictions whose services are provided by Los Angeles County, most have communication costs incorporated into their agreement.
- Most fire and police annual maintenance costs associated with their communications systems are less than $300,000.
- Mobile and portable radios vastly outnumbered other types of units (such as control and console units) utilized for fire and police communications systems.
- For every ten sworn officers, there are three to four non-sworn personnel who use the system.
- EMS/paramedic services were provided by the fire department in 80 percent of responding jurisdictions.
- There was a relatively even spread of wireless broadband usage over jurisdictions. Usage ranged from less than 2 GB to unlimited GBs.

- Although most jurisdictions did not track, or did not know, their annual call volume or dispatch volume for their public safety services (fire, police, EMS, and other), of those that did, the majority answered that it was less than 10,000 each.

- Earthquake, wildfires, and hazardous materials release were the top three hazards that threaten most jurisdictions.
- Most public safety service departments of a jurisdiction did coordinate with those of another jurisdiction.
- When asked how satisfied a jurisdiction was with coordinated communication with outside departments, of those that responded, almost half were very satisfied.
- When asked how satisfied a jurisdiction was with interoperability with other jurisdictions, of those that responded, almost half were very satisfied.
- A weighted average showed that most jurisdictions preferred a variable-based cost allocation, followed by a tiered fixed-fee method, and fixed-base and variable metric charge. A fixed-fee cost allocation was the least preferred.

Small Group Discussions

The objective of the small group discussions was to elaborate on survey responses, to identify benefits and shortcomings of various funding methods, and to learn about barriers to membership. Within the small group discussions, three main questions were posed:

1. Is the proposed LA-RICS system important for your jurisdiction? Why or why not?
2. What do you think are the regional benefits of this proposed system?
3. What would prevent you from becoming a member of the proposed system?

At the beginning of each discussion, participants were asked to introduce themselves and answer question number one. Subsequent to the introductions, a discussion ensued about questions two and three.

The overarching themes that came out of the small group discussions over the course of two days are summarized below.

Cost

- Jurisdictions need certainty in year-to-year costs and are concerned about the potential variability for LA-RICS.
- Agencies want to be sure the cost structure avoids discouraging use of the system in a way that may compromise public safety.
- Current members of ICIS are concerned about losing coverage and functionality or double-paying for maintaining two systems to meet their needs.
- Jurisdictions had concerns about who would pay for upgrades.
- Some members expressed the benefits of economies of scale (e.g., greater purchasing power).

Coverage

Some jurisdictions are happy with the coverage they have, and many require more technical information on the system capabilities to determine if they want to participate in LA-RICS.

- Concern that LA-RICS level of service may not meet current standards, and therefore would not be appealing even if costs were lower.
- Jurisdictions were unsure of "what they are getting."
- Sub-regional interoperability may be necessary if a regional system is too large for some jurisdictions.
- Some jurisdictions have geographic constraints and densely populated areas that require a different type of coverage.
- There is concern about system failure due to the size of the LA-RICS coverage area and its administration.
- Jurisdictions want to be sure that the system will work within all buildings.

Control

Jurisdictions (especially smaller ones) are concerned about losing local control or the ability to make the decisions that are best for their community.

- LA-RICS needs to be better defined, including the consequences if some jurisdictions do not participate.
- Moving to the LA-RICS system is a leap of faith and there are concerns that it will not work.
- Cities are skeptical of many regional systems because they are not tailored to individual city's needs.
- Some jurisdictions have moved or are in the process of moving to ICIS because it is working well.

Compatibility

Agencies are uncertain about the compatibility of the LA-RICS system with their current infrastructure and radio systems/units.

- Members of ICIS question if a link could be developed between LA-RICS, ICIS, and existing subsystems.
- Some stakeholders were of the opinion that there is no advantage to one master system, and that existing systems should communicate, or be integrated, with one another.
- Members are concerned about the transition process from their current system to LA-RICS.
- Members had questions about compatibility with neighboring county systems.
- There is concern that the system has not been thoroughly tested.
- Participants suggested also exploring an expansion of ICIS.

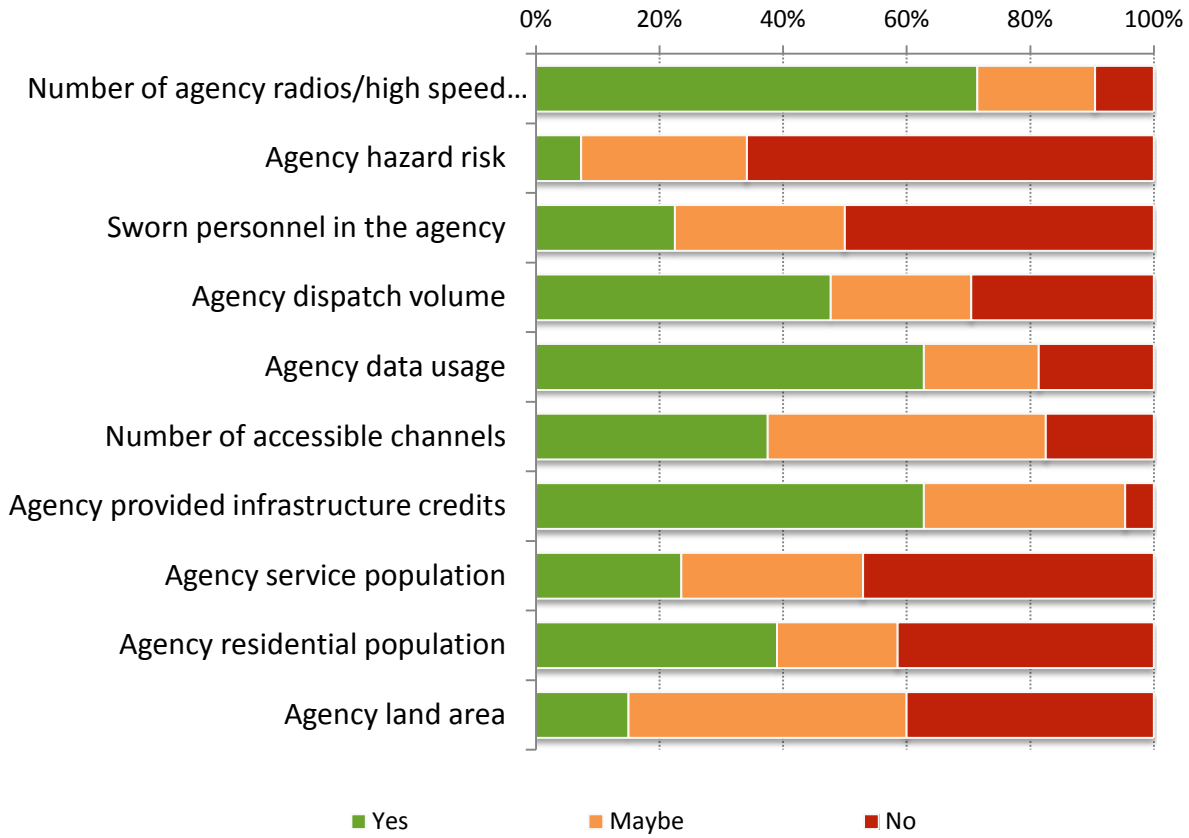
Variable Activity

A group activity was conducted once everyone had been given a chance to answer the three aforementioned questions. The activity allowed participants the opportunity to identify which variables they believed should be considered when allocating their annual operating costs. One member of each jurisdiction went through a list of variables and put a sticky dot in a "Yes," "No," or "Maybe" box indicating their preferences. Members of the same jurisdictions were allowed to collaborate to determine an appropriate response for their city. A copy of the Variables Activity Board can be found in the appendices.

The following chart indicates the number of dots placed in each corresponding box.

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	30	4	8
Agency hazard risk	3	27	11
Sworn personnel in the agency	9	20	11
Agency dispatch volume	21	13	10
Agency data usage	27	8	8
Number of accessible channels	15	7	18
Agency provided infrastructure credits	27	2	14
Agency service population	8	16	10
Agency residential population	16	17	8
Agency land area	6	16	18

The graph below helps further emphasize participants' preferred variables and indicates that the top three preferred are: number of agency radios, agency data usage, and agency-provided infrastructure credits. Agency hazard risk was the least preferred variable.



Next Steps

The second round of Authority stakeholder meetings will be held on the following dates and times.

Wednesday, December 18, 2013

1:30 p.m. to 3:30 p.m.
Glendale Central Library
Second Floor Auditorium
222 E. Harvard Street
Glendale, CA 91205

Thursday, December 19, 2013

10:00 a.m. to 12:00 p.m.
Whittier Community Center, Room 1
7630 Washington Avenue
Whittier, CA 90602

The purpose of these meetings will be to present the results of the first round of Authority stakeholder meetings and to inform participants how the November meeting information is being used in developing the proposed Funding Plan. Attendees will also learn more about the preferred variables, how they may be assessed, and their overall predictability, which may help with the rating process. Similar to the first round of stakeholder meetings, small discussions and an activity will follow a PowerPoint presentation. The activity will allow participants to rate (on a scale of 1-10) how influential each of the preferred variables should be in determining cost allocation.

Section 4. Cost Allocation Method

This section presents the cost allocation methodology for the LMR and LTE systems. Cost allocation, or apportionment, is the manner by which the various costs of the system are assigned to defined user characteristics and then allocated to the LA-RICS members based on each member's known user data. The apportionment methodology considers the components of the system costs to the extent that they are known or can be estimated.

The objective of this section is to 1) outline in a representational model the system funding preferences of the membership that were stated at the stakeholder meetings; 2) generate further discussion and comment on funding model parameters and development; and 3) highlight certain policy questions in financing the LMR and LTE systems that need to be addressed before a final funding model is submitted for review and approval by the Authority.

Cost Components of Systems

The costs and model development in this working paper assume full build-out and implementation of the interoperable communications systems as defined in the executed agreement for LMR and the request for proposal for the LTE program. Costs based on a phased build-out and implementation will result in different costs in the early years of the system. The phasing assumptions for system development will be determined by the Authority.

Land Mobile Radio (LMR)

Components of cost of LMR are the contract system maintenance costs (Phase 5) totaling approximately $56 million for the full 15-year contract period.[1] In addition to the contracted system maintenance cost an infrastructure component is included to account for replacement and technological upgrade and/or obsolescence. This infrastructure component, or capital replacement, is called the "Life Cycle Cost" and, for this working paper, is specified as 20 percent of the total cost of Phase 1 through 4 of the LMR contract, to represent the local match for future grants that, it is assumed, would fund the majority of future technological upgrades and capital replacement. Therefore, the annual Life Cycle Cost to be allocated is the amount needed to raise approximately $30 million (20 percent of the $149.6 million Phase 1 through 4 "Unilateral Option Sum", Exhibit C.1) over the life cycle period (assumed to be 15 years). An amount for Authority administration costs would also be included in the LMR operations and maintenance costs.

Although not actually a part of the LMR cost, but related in some respects to, is the issuance of credit for long-term infrastructure that members may contribute to the system. As envisioned, the credit would act as a direct offset to the member's share of capital cost for its contribution of long-term infrastructure.

[1] Exhibit C.6 – Schedule of Payments LMR System Maintenance – LA-RICS LMR Agreement with Motorola. The payments vary from year to year, beginning at $4 million in year 1 and reducing to $3.6 million by year 15.

Long Term Evolution (LTE)

The costs for LTE shown in this working paper are from the Broadband Technology Opportunity Program (BTOP) grant Budget Narrative dated November 25, 2013. The itemized cost components are as follows:

1. System operations and maintenance: To be provided

2. Total matching funds (cash) for LTE construction grant (hard match): $19,461,987

3. Total matching funds-in-kind for LTE grant (soft match): $19,429,933

In addition, the model accounts for LTE life cycle capital costs that are paid for by the jurisdictions which, for illustration purposes, is assumed at 20 percent of total LTE construction cost. This amounts to $38,706,384.

In-kind matching funds may be counted as program administrative support, a contribution of infrastructure, or a combination of both. As with LMR, a member's contribution of usable infrastructure may be applied as an offset to that member's share of matching funds or life cycle costs, subject to Authority approval.

Cost Apportionment

The LMR and LTE program costs can be divided into an infrastructure (initial capital or capital replacement) component and an operations and maintenance (O&M) component. The financing model seeks to apportion costs to the members relative to each member's usage on the LA-RICS system relative to these two major cost components. As stakeholder survey results revealed that members do not prefer a fixed fee that is not tied to a member's specific impact to the communications system, it is necessary to incorporate one or more measurable characteristics as a tool to determine each member's revenue contribution. Once these characteristics or variables are identified, they will form the basis for calculating member payments corresponding to the member's share of capital and O&M expenses.

Cost Variables

The costs for constructing, operating, and maintaining the LMR and LTE systems are established (or will be established) in the agreements with the systems' provider. This Funding Plan therefore assumes that all costs are fixed—at least through the contract periods of the agreements. While the total system costs to be apportioned will not vary, it is possible to distribute the costs among members through the use of several determining variables which will be discussed below. It should be noted that the variables discussed in the Funding Plan may or may not have been key factors used by the provider in determining the established total systems costs. The LMR and LTE systems are very complex and, in order to assemble their cost proposal, the provider would have had to consider many more factors than the variables presented below.

The infrastructure and operations costs of the systems are dependent on a wide range of factors such as geography, topography, land use patterns, population distribution, existing infrastructure and agency interface, and the specific public safety and emergency communications needs of the members. The provider's cost proposal also accounts for substantial uncertainty in both constructing the systems and implementing service. Given the complexity of the cost proposals, the Funding Plan measures each member's share of the communications systems cost based on their respective usage and apportions the costs accordingly. Furthermore, by assigning variables associated with system capacity and usage, the Funding Plan preserves the relationship between these cost components and the members' individual impact on these costs. Listed and described in the table below are examples of variables that capture to a degree the two major cost components of the systems. These variables will be further discussed at upcoming stakeholder meetings. The purpose of presenting these variables is to show how they potentially would be used to determine a member's share of capital replacement and O&M costs. Other variables that the stakeholders and Authority members introduce can be factored into the funding formula based on Authority discussion and potential refinements to the initial model.

There are a few important questions to consider when selecting variables:

- Does the variable actually provide a good metric of the characteristic of interest? For example, if usage of the system is thought to be a good indicator of the impact on operations and ultimately the cost of operations, does the variable reflect actual usage of the system?

- Is data available to support the use of a variable? If the data is not available for every member, then the variable is less useful in a working cost model.

- Does use of the variable "crowd out" or diminish the weight in the formula of a more representative variable?

- As the underlying data for the variables could change over time (e.g., number of radios), which could affect their cost share, is the participating agency willing to report the updated information?

Table 2 lists some potential variables and their applicability to capital and O&M costs; more may be identified as the formula specification process continues.

Table 2. Potential Variables for LMR and LTE Cost Sharing Formulas

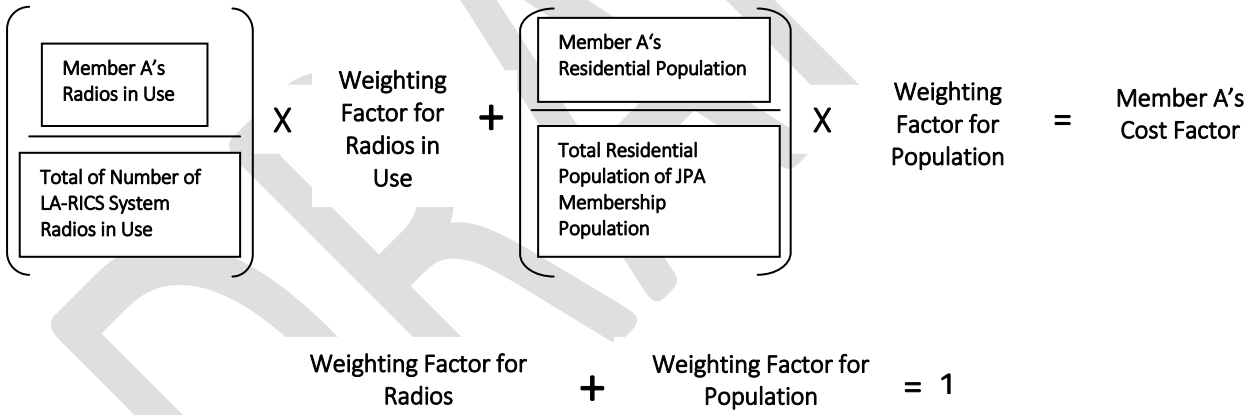
System/ Variable	Description	Measure of Cost	Variable applied to	Variable applied to O&M
LMR				
Total actual radios in inventory	A jurisdiction's inventory of radios for first and second responders	Measures the capacity of a jurisdiction's use of the LA-RICS system; the higher the inventory, the increased capacity required of the system.	X	
Monthly average radios in daily use	A jurisdiction's typical radio use for first and second responders	Measures the typical usage by a jurisdiction of the LA-RICS system; the higher the average radio use, the greater the impact to the system.		X
Dispatched calls for service	A jurisdiction's origin of use of the LA-RICS system by first and second responders	Measures to a degree each jurisdiction's local environment; the higher the dispatch calls for service, the greater the impact to the system.		X
Jurisdiction residential population	A jurisdiction's current resident population	Measures the size of population as a predictor of system use; in general, the greater the population, the greater the impact to the system.	X	X
LTE				
High speed data units	A jurisdiction's inventory of high speed data units that require broadband access (mobile devices, tablets, PDAs, etc.) for first and second responders	Measures the capacity of a jurisdiction's use of the LA-RICS system; the higher the inventory, the increased capacity required of the system.	X	X
Jurisdiction maximum data available	A jurisdiction's maximum allotted broadband usage using current broadband estimates for first and second responders	Measures the capacity of a jurisdiction's use of the LA-RICS system; the higher the maximum data available, the increased capacity required of the system.	X	
Jurisdiction average daily data use	A jurisdiction's typical daily broadband use for first and second responders	Measures the typical usage by a jurisdiction of the LA-RICS system; the higher the average broadband use, the greater the impact to the system.		X
Jurisdiction residential population	A jurisdiction's current resident population	Measures the size of population as a predictor of system use; in general, the greater the population, the greater the impact to the system.	X	X

Use of Variables

Initially the cost formulas for LMR and LTE will be based primarily on the information provided by the members and can be refined and updated over time as more information becomes available. Each member would report the quantity or volume for each variable used in the formulas. As the LA-RICS system becomes operable, the system itself may be able to capture the required information in lieu of reporting by the members.

A system-wide total for each variable is derived by summing all members' quantities for that variable. A member's variable factor will be determined by dividing its quantity by the system total. A weight factor determined by the members during the stakeholder meetings is then applied to the variable. The weight factor is used to measure the significance of the particular variable relative to other variables in predicting the cost share for each member. Figure 1 illustrates how the share of LMR operations cost for a given member would be calculated using the average number of radios in use and the member's population. The variables are identified for illustration purposes only.

Figure 1. Formula for LMR O&M Cost Allocation



Note: Variables for illustration purposes only.

The weighting factors in the above illustration will be determined based on stakeholder input. The weighting factors must sum to one which will also be the total of all members' cost factors added together. The cost factor derived from the above illustration would then be multiplied by either the annual total LMR O&M cost or the total LMR Life Cycle Cost to arrive at the member's cost share for O&M or capital. The members' share of the cost for O&M and capital would be calculated separately but using the same apportionment method illustrated above and possibly with different variables and different weighting factors that will be determined based on stakeholder input. Figure 2 provides an illustration of the apportionment using hypothetical figures.

Figure 2. Illustration of Cost Allocation Formula

Assumptions: Member A has 200 radios in use. There are 1,500 total radios in use in the LA-RICS system. Member A has 90,000 population. Total population is 500,000 in the LA-RICS system. Weighting factor is 60% for radios in use variable, and 40% for population variable to illustrate the relative importance of each variable on the the cost share. Weighting factors will be determined during stakeholder workshop.

[(200/1,500) x 60%] + [(90,000/500,000) x 40%] = Member A's Cost Factor

(0.079) + (0.072) = 0.151

If Annual Total Cost is $1M, then Member A's Cost Share is = $1M x 0.151 = $151,000

Note: Variables for illustration purposes only.

Infrastructure Credit

One important modification to the formula for capital replacement would be if a member had infrastructure to contribute to the system that is eligible for a credit against the Life Cycle Cost. Eligible infrastructure includes but is not limited to: sites and site leases; roads; foundations; network operations center; equipment centers; monopoles and other towers; equipment cabinets, buildings, and shelters; electrical power; lighting; uninterruptible power supplies; back-up power supplies; cabling; heating, ventilation, and air conditioning; fiber optic ring; microwave backhaul network; and fiber optics.[2] The annualized cost of the eligible infrastructure must be determined and would be depreciated over the applicable life cycle of the eligible equipment and/or improvements when calculating the applicable infrastructure credit. The model to illustrate the credit for both LMR and LTE is shown in Figure 3.

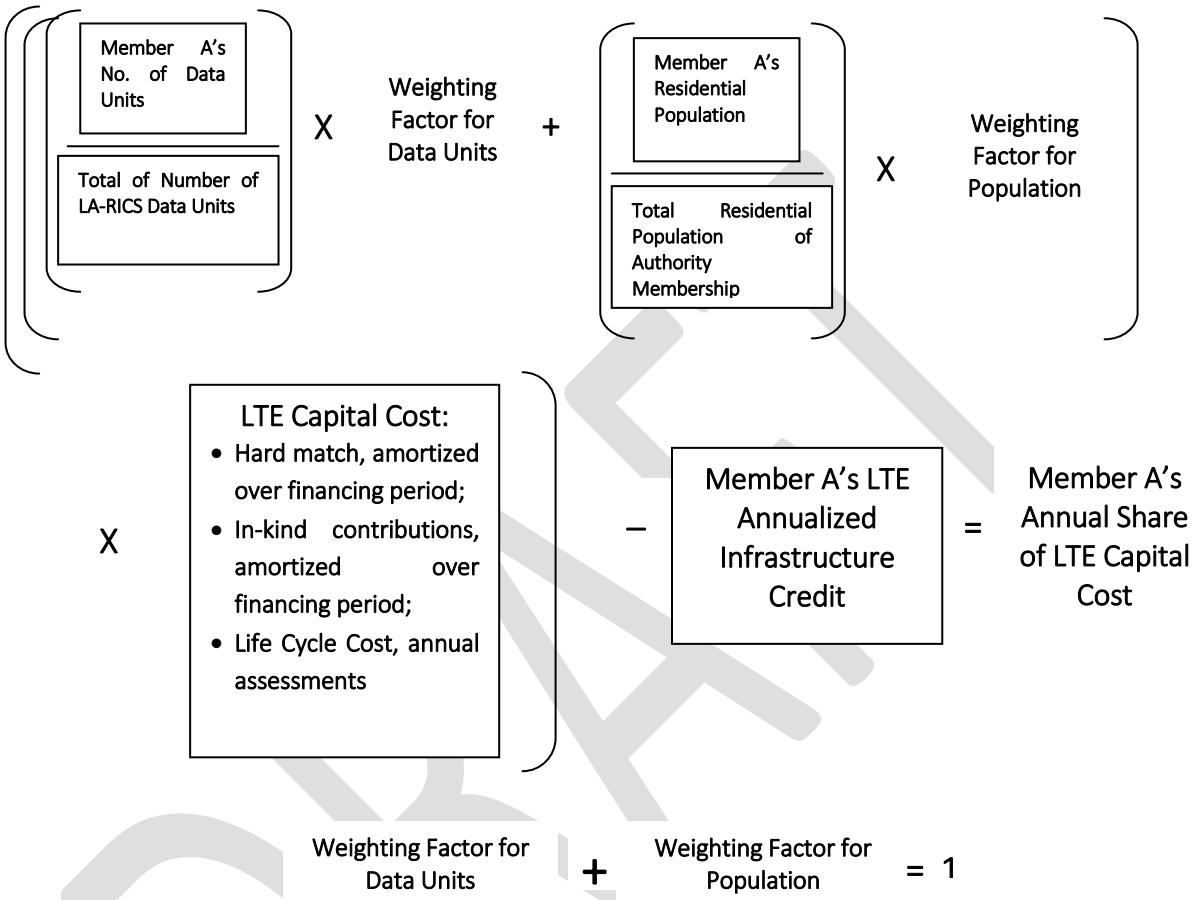
LTE Formulas

The formulas for LTE cost sharing have the same general structure as LMR described above, but with different variables and cost components. The LTE BTOP grant requires a hard cash match of approximately 10 percent and a soft match of 10 percent that may be provided by in-kind contributions. For the purpose of illustration the hard and soft match plus the LTE Life Cycle Cost are combined to equal the LTE capital cost to be apportioned. In the actual Funding Plan these costs may be broken out separately. Each cost can also be separated for their respective apportionments through replication of the formula. The in-kind contributions include non-infrastructure items such as administrative support and program management, but the total in-kind contribution is considered for the purposes of LTE capital cost apportionment.

[2] Eligible infrastructure is also defined in the LMR Agreement as "Authority-Provided LMR Infrastructure" and "Authority-Provided LMR Hardware" and is also referred to in the Agreement as "Existing Infrastructure," "Existing Equipment," and "Existing Sites."

In Figure 3, two capital-related variables are indicated for LTE: high speed data units and residential population. The illustration below indicates how the infrastructure components of the LTE program would figure into the members' share of capital cost.

Figure 3. Formula for LTE Capital Replacement Cost Allocation

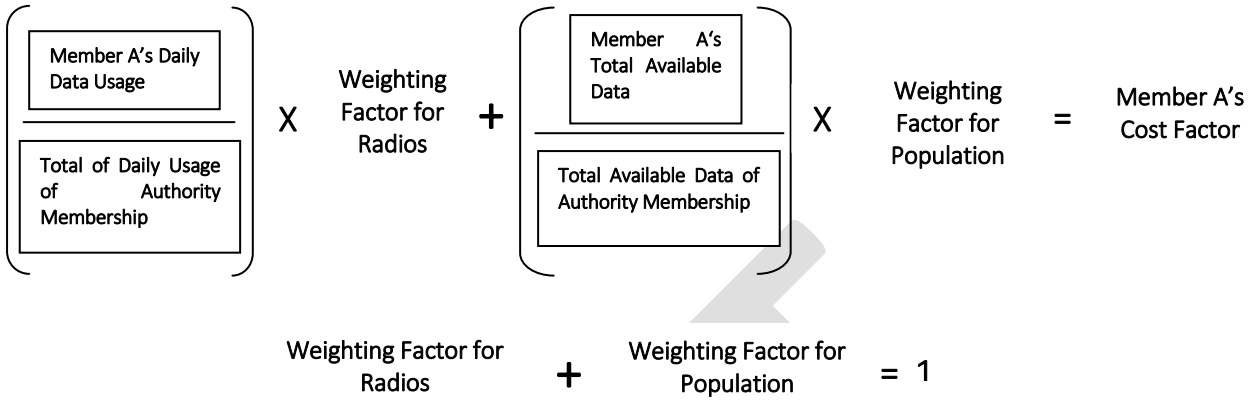


Note: Variables for illustration purposes only.

One thing to note in the above illustration is that a member's infrastructure credit may be applied toward its share of the LTE grant's in-kind contribution. Or, alternatively, it may be taken as a credit against the Life Cycle Cost assessment for eligible infrastructure subject to annualized depreciation and Authority approval. LTE capital cost, infrastructure credits, and member shares are annualized amounts.

The LTE O&M cost formula would follow the same format as the LMR's O&M formula, as shown in Figure 4, below. For illustration, the variables used are daily data usage and total available data.

Figure 4. Formula for LTE O&M Cost Allocation



Note: Variables for illustration purposes only.

Buy-in Cost for Late Adopters

The Funding Plan is predicated on the assumption of full participation of every member of the Authority. That is, the member shares will be calculated assuming every potential member is paying its indicated annual share. However, this scenario is not likely to occur in the initial years as some members will exercise their right to withdraw as allowed under the Authority agreement. For every member that chooses not to participate, its annual share of the cost must be assumed by the Authority should total system costs be higher than the revenues collected from participating agencies. As the assumed costs in this document do not include phasing of the LA-RICS system, total costs for both LMR and LTE are not tied to participation. As described earlier, any phasing of the infrastructure and subsequent O&M is not built into the model but may result in different cost shares.

Each year a member remains outside the LA-RICS program, its allocated but unpaid cost share will accumulate. The opportunity for a member to buy in later into the program will involve paying its accumulated unpaid member share with interest, assuming the Authority incurs carrying cost of loans or funds for advanced funding to pay the LMR and LTE agreements. Members who choose to buy in at a later date may take advantage of any infrastructure credit that the Authority deems eligible.

Assignment of Cost Share Data

The Funding Plan requires initial data input on the variables from members to specify the cost-sharing amounts. The reliance on data from members provides a component of local influence in that a jurisdiction's provided data will directly impact its cost share. Data not provided by members, non-members, or withdrawn members will be assigned an allocation of their variables for purposes of calculating a "standby" share cost, and to minimize burden on the participating

members. The assigned allocation could be based on information provided by respondents to the survey conducted for this paper, actual data provided by similar-sized jurisdictions, or another readily available characteristic to be decided by the Authority. Cost shares are calculated for all current members whenever there is buy in from new or returning members, contingent on new or returning members providing their variable data.

Incentives for Early Adopters

The Funding Plan described in this working paper does not provide a direct incentive per se to "early adopters" (current members who do not withdraw after approval of the final Funding Plan) other than avoidance of the accumulating finance charges when and if a withdrawn member chooses to buy back in, as well as the standby costs. However, the financing charges and standby costs accumulate depending on how long a member waits to re-enter.

A program of incentives and/or penalties may be considered as a means to influence a jurisdiction's decision to be an early adopter, or to rejoin the Authority at an earlier period after withdrawing. Possible incentives/penalties include:

- For the LTE program, some portion of the hard and/or soft match recovery costs may be forgiven for early adopters. Alternatively, this incentive could apply to early adopters of both LMR and LTE.
- Only fully participating members from day one may obtain infrastructure credit at full value, and the credit will diminish as the infrastructure depreciates.
- The granting of member infrastructure credits could be eliminated after a given period of time, the rationale being that as time goes on, and the communication system is put into service, the existing infrastructure becomes less valuable as an asset.
- Early adopters can take advantage of favorable interest rates for amortized principal (LTE hard and soft match).

Mutual Aid Agreement Affiliates

Agencies that have formal mutual aid agreements with Authority members may receive limited authorization to utilize the RICS network as a result of the mutual aid agreement. Access to the RICS system will be limited to those communications essential to and within the scope of such mutual aid operations.

Technical and Policy Questions, Issues and Assumptions

The following are technical questions that would improve the characteristics of the Funding Plan and its implementation:

- Does the LMR contractor know if a radio's use can be tracked by radio?
- Could the LTE contractor provide bandwidth/data usage detail?
- Can LA-RICs obtain regular data on system use?
- Can or will one or more of the service options (the ten "Unilateral Options" of LMR Phase 5 listed in Exhibit C.6 of the LMR Agreement with Motorola) be deferred if full participation does not occur?
- Does the Authority anticipate financing any or all cost components (this is key assumption of the Funding Plan)? If so, the type of financing instrument (loan, bond, certificates of participation) and financing parameters (term, interest rate) will need to be identified.

The Funding Plan as described in this working paper assumes resolution of several policy questions and specific parameters yet to be determined. The Funding Plan will be further refined as these questions and related issues are addressed in greater detail by the Authority.

Section 5. Data Monitoring

The cost model, at least during the initial term, places an emphasis on data contributed by the members as inputs to deriving each of their cost shares. The variables for the model can be updated on a regular basis with recent data that measures each agency's current communications usage and capacity. With multiple variables being considered and the wide array of participating jurisdictions, a check and verification process should be in place for the data that is collected and reported to LA-RICS.

For this regular reporting process, a means to validate the data submitted to LA-RICS could be conducted by an independent third party. The validation could include tracing the process by which the data is collected and reported by the jurisdiction, reviewing internal and external reports generated by the jurisdiction, conducting field visits, and developing historic trends in the reported data. The validation should occur in regular intervals such as annually or biannually and implemented through various techniques including random validations and/or geographic-focused verification.

The data monitoring process would be applied to information generated by the member jurisdictions as well as by the LA-RICS communications provider should the provider have capability to track the variable data. A report of the findings would be developed for the LA-RICS Board by the independent third party reviewer. An ongoing program of data verification is required as an assurance to all participants and the Authority that the cost shares are apportioned using representative data for each participating agency.

Appendix A. Member Outreach – Agenda and Comment Card

Proposed Funding Plan
Stakeholder Engagement Meeting

AGENDA

- Registration
- Welcome by Pat Mallon
- Introduction of project team
- PowerPoint presentation
- Small group discussions
- Report back
- Wrap up

COMMENT CARD

Is the proposed LA-RICS system important for your jurisdiction?
Why or why not?

What do you think are the regional benefits of this proposed system?

What would prevent you from becoming a member of the proposed system?

NAME/TITLE_____

AGENCY/CITY_____

PMC

Appendix B. Member Outreach - Meeting Handout

LA-RICS

Case Study Comparisons

The proposed Los Angeles Regional Interoperability Communications System (LA-RICS) will require a funding plan in order to provide grant matching and operating expense funds. This handout provides a simplified explanation of how annual operating expenses are allocated to member agencies in four systems similar to the proposed LA RICS project. Additional case studies are also being considered (see working paper for more information).

Comparable System #1 (S1)

S1 is currently developing an LTE (broadband data) system for emergency responders. S1 charges an annual membership fee to all members. Members that use the services are required to purchase their own devices, pay for back office connectivity, and pay a monthly service fee per unit connected to the system. The monthly service fee revenue is split between the contracted provider and the JPA.

Comparable System #2 (S2)

S2 provides interoperable radio communications. S2 cities that provide infrastructure are considered members. Members pay annual member dues, which increase for cities with more than 100,000 residents. Additional participating agencies known as subscribers do not provide infrastructure but are in the coverage area. Subscribers pay a per radio fee to the member that is hosting them and a fee to the S2 JPA. The fee increases for roaming services.

Comparable System #3 (S3)

S3 is an LMR system that serves emergency responders and other agencies in a county. Agencies that participate in the JPA pay an annual membership fee. The additional operating costs not covered by the membership fees are distributed among members based on several variables, including population, land area, and agency type.

Comparable System #4 (S4)

S4 is a radio system that serves agencies in a county. Nearly half of the system's annual expenses are paid by the county. The remaining expenses are paid by member agencies. Costs are allocated to agencies based on their portion of systemwide radios.

System Characteristics	Comparable Systems			
	S1	**S2**	**S3**	**S4**
Purpose	Allows first responders to share text, graphics, real-time video, and other mobile "apps" designed specifically for public safety	Shared system with components purchased and constructed by individual cities and linked together through a microwave network in order to provide regional coverage	Provides essential communications between and among local and regional public entities that serve all facets of public safety, including fire, police, public works, special districts, transportation, and other emergency responders	Provides radio communication services to city and county law enforcement, fire services, public works, and lifeguard/marine safety departments
Function (e.g., land radio, telecom)	High-speed data	Radio communication	Radio communication	Radio communication
User group types	Public safety agencies	Public safety agencies	Public safety, transit, and land management agencies; private brigades	Public safety, lifeguard, and public works agencies
Number of participating agencies	7 counties 3 cities	16 cities	1 county 11 cities 6 fire protection districts numerous non-emergency response–related agencies	1 county 22 cities
Membership payment methods (e.g., tiers, levels, subscriptions)	Monthly membership fees plus charges for each unit on the network; local infrastructure and connectivity is the responsibility of each city	Member agencies pay annual fees; affiliates pay a per-radio fee that varies based on roaming status	Members pay a percentage of annual operating expenses based on a formula that factors the jurisdiction's area, population, and agency types	The county covers a certain amount of operating costs; member city costs are apportioned according to the number of radios they have relative to the number of total radios in the system

Appendix C. Member Outreach – Wednesday Meeting Transcribed Notes

Wednesday Meeting

Variables Poster

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	5	1	2
Agency hazard risk	0	8	0
sworn personnel in the agency	1	5	1
agency dispatch volume	3	5	1
agency data usage	2	4	3
number of accessible channels	5	2	2
agency provided infrastructure credits	3	1	4
agency service population	1	4	2
agency residential population	1	7	1
agency land area	0	5	2

Flip Chart Notes

Signal Hill - can be if it works out
On the fence
Long Beach - City thinks its good but yet to be convinced
Vernon - may or may not be

Huntington Park - important, but yet to see benefits
Have ability to patch now
One county under umbrella but cost
Need data to sell it
Know existing cost of existing system
cost has to pan out - cannot be unreasonable
are we giving up control of technology
going to have to give up new system
what does it mean day-to-day
too expensive - could opt out
system now allows for interoperability countywide, use it/works
what are we getting?
may need sub-regions to operate (regional is too large for LA County)

doubtful youwill have the whole county coordinating

earthquake - everyone will take care of their own

cost savings for equal or better service and to change

just spent 1/2 million on new radio system
have to return all VHF, concern with capability
will it cover us (how is coverage?)

could benefit a jurisdiction who wants a new system
Keep LMR+LTE separate
Long Beach system works great
credit back to cities who do tech work for LA RICS (in addition to infrastructure)

# of radios
Yes - should be dependent of # of radios (influences the whole cost of the system)

No - disincentive to supply all officers with a radio
Maybe - one component of the total
How about # being used at one time?

Agency hazard risk
map may not reflect where the disaster will be

Sworn personnel
how many radios will be used at one time
what is the end user and that dictates the cost

actual air time usage? - look into this
base on push to talk + air time - but how do you predict $ to set aside?

Dispatch volume
gets into demographics + cap uses
doesn't include interagency calls

Data usage
fire = low usage
police = high usage (misleading)
what type of data though?

Accessible channel
yes, variable with small # of channels

Infrastructure credits
depends on the credits

agency service pop
demographics differ among jurisdictions (not # of people)

agency land area
no bearing on radio usage
depends on how youdefine land
density of pop on land
no payment for land that's not populated

Yes: equation needs to evolve
Credit
call volume/usage of radios
push to talk + air time
look at each agency and look at what the end user will be

Good in theory
Hidden fees?
local repairs
unanticipated costs?

Annual maintenance
long-term costs?
Downey - poor interoperability
Equipment concerns - antiquated
Future upgrades?
How to address non-participation
Price point *

Interoperability has taken a long time
Growth?
Is it necessary?

Improved Interoperability
ICIS
The more cities the better
keeping everyone on the same page

Issues
Equipment (change?)
what pieces will need to be replaced?
LTE: what software needs to be run?

Procedural issues:
radio connectivity
who identifies and manages resources
procedure: is control lost?
supervisors must sell to troops
training to use: must be simple

decisions are handed off b/c of lack of interoperability
will equipment need to be changed? - training

Benefit: (City of LA)
LA operates with partners
Opps to communicate with others
earthquakes
metrolink crash

Maintains communication levels of today
building coverage in high rise areas
economies of scale could save money
long overdue
reality: how much would it be used?
small cities would talk amongst their services and neighbors
coordination with OC?
Data driven (police) - city of LA

Costs (initial and extended)
compatibility
loss of control
will it work with current systems
new systems
exclusive channels

unanswered questions
what would be available?
even small jurisdictions have control

will it wipe out current systems
back out of current systems?
look at user necessity
woll procedures and protocol change
new technology may merit new procedures
streamline or hinder operations?
assess what is out there
future costs
replacement costs

Appendix D. Member Outreach – Thursday Meeting Transcribed Notes

Thursday Meeting

Variables Poster

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	19	0	3
Agency hazard risk	3	9	11
sworn personnel in the agency	2	12	8
agency dispatch volume	12	4	7
agency data usage	18	1	4
number of accessible channels	9	5	9
agency provided infrastructure credits	18	0	5
agency service population	5	9	6
agency residential population	10	7	6
agency land area	6	3	12

Flip Chart Notes

County Operators
Switching to County
Advanced Level
Benefit to Pasadena

Pasadena ICIS
Losing Coverage
Double Paying

Interconnection between ICIS and RICS
How will it play with existing systems?
Will existing infrastructure be credited to LA RICS (compatability)?

Agoura Hills
Looking bigger picture (reliance on County)
Interoperability
Cost? (Beneficial)

LA RICS + ICIS
Link?
Existing Subsystems

Full Service Contract Systems
Funding is a non-issue
End User training equals money

Interoperability isn't what it's made out to be
Fire & Sheriff don't talk

Cost for Calabasas is not an issue
Bigger jurisdictions have all services within.
Smaller jurisdictions contract out

Issues
Good Idea

What will it cost to those that are self contained?
Allocation?

Smaller cities have difficulties talking with each other
Fruit salad
can't talk with one another

ICIS all on same system

Benefit for ICIS is interoperability with fruit salad.
Advantage is interoperability with LA County
In larger situations, Pasadena must fall back on legacy system.
Bring RICs up to current systems/standards.
Fear of unknown
Need to discuss agency provided infrastructure
(haven't heard anything about that)

RICS system needs collaborative communication:
Need people to use system to understand
Need people to teach other people.

Santa Clarita upgraded radios this year, high speed network/independent
Burbank - ICIS - 10 years trunked system/t-band interoperable
Glendale - ICIS - 10 years

LA County
Benefits - Interoperability,
no real advantage to one master system, with systems just need to communicate
two-way is key
Need to be better ICIS, or not interested
even if costs are the same, won't switch
RICS is actually less coverage

cost will be deciding factor
will independent, smaller cities have equal representation in design and maintenance?
local control is preferred
could be more to lose than gain by joining county system
how do we integrate existing systems?
need independent + LA RICS in emergencies
County is good to coordinate
would FEMA rely on RICS or take over?
traditional disasters vs national disasters
grant funding should make RICS less money

may not think radio is a good deal, but data is needed
flexibility is needed with data/radio
currently JPA doesn't allow data or radio

Variables
# of radios
get what you pay for
worst case scenario
includes secondary responders

hazards
not equitable
risk paying twice (may already be insured regarding hazards)
contract cities?
hard to evaluate hazards

sworn staff
radios more appropriate than sworn people
not accurate usage

dispatch
# of radio transmissions is better measure
not dispatches, doesn't account for all usage
airtime volume and duration
needs additional weighting factor
need to define, doesn't tell you gravity of call

LA RICS - enough data to do License checks
should be able to opt in to radio or data
very important to measure data

VOIP may be main system eventually
LMR won't be needed after VOIP

Interim solution - RICS

# of channels not good cost factor, may not use all channels
may cause load issues
operationally ok - need to access system
fees not good cost variable
all cities must have access

credits
great way to price system
RICS costs + local costs could be more (RICS costs scope need to be defined)

value for city-owned sites, not just infrastructure

Population
both important day and night
employees creating revenue for City
Added population is okay

Land area
larger land area is more sites and development cost is higher
county would be largest land user
add "terrain" factor
density/land burden

what is the degree of infrastructure required?
how many variables do we work with?
need to limit, but one is not enough
(i.e. 70% call volume + 30% assessed valuation)

What are the long-term costs?
how will it be funded after system is running?
need financial sustainability

Connection costs?
number of units need to buy?
need to re-assess variables each year?

LA RICS putting money away for replacement system?
figure constant debt burden into fees?

will need to add sites to operate
where will money come from?

cost will be deciding factor
support interoperability, but no need for one system if all existing systems integrate

supportive of a combo of most variables
not hazard risk
dispatch equals transmission volume

adding employment is key to population variable

ICIS Members
Already have system
would not want to build from
critical consideration

What is the benefit to waiting besides jumping on a new system now?
Invested a lot of money into ICIS
New radio plan (San Gabriel)
make sure it is easy to operate
user-friendly

Barriers

Cost - how much each city will have to come up with
Radios - very critical (Alhambra)

Broadband not a need to have (100% based on cost)
Have functioning system through ICIS
LA RICS will have to seamlessly transition fom one system to the other
Release of local control
Provide secondary access
prefer to stay on t-band
Cost effective
Vet to make sure it will work
All new devices?
can system be cheaper?
timing, transition from one system to the next
Cost
functionality of system
good coverage + penetration
radio has to work first (broadband a plus)
needs to be defined
how much control will individual agencies have

what is the result of some agencies not participating

Security issues - sharing user location information

Variables
All maybes - so diverse & everyone has different
needs - not enough info for LA county
variables are unclear - need more information

all of this is dependent on set-up, initiation costs
lots of maybes
# of radios + data use+ land area + dispatch volume - directly impacts system so yes.
Service pop, hazard risk, sworn personnel - not fair or relevant
disincentive to provide radio for each person
How much youctually use the radio? (and can you actually measure digital radios)
Sell that it is equitable
sworn personnel - some cities are overstaffed
More about usage, not units
population - discrepancy between day time and night time (doesn't impact dispatch)
radio = dispatch volume (100%)
data side = data usage
what about cost of coverage?

strong no: sworn personnel, agency service population

How do you count population? (daytime, nighttime, undocumented, census) what are the assumptions?
DO we have to report this data? # of dispatch calls.
Everyone will report it differently
Volume doesn't fluctuate much + go back 1 year

accesible channels - unclear, doesn't everyone have as many as they want? No, may not use some of the channels enough, subject to cost not need
Infrastructure credit - weighted appropriately
land area: not clear, will it hurt or benefit, if it requires extra towers because of large areas, geographic barriers, density.
Land area is not reliable
LTE+ LMR should have different cost structure

Santa Monica - own LMR
Gardena - RCC - South Bay Radio needs
Compton Fire

SM - potential benefits across region
purchasing power
common platform

funding + costs
initial + ongoing
technology questions
how that is developed
A lot riding on "unknown word" LTE can accommodate voice
System coverage?
who pays for upgrades?

Gardena - eliminate nimbleness of small city

Compton fire - LMR system (agree with previous)

Smaller jurisdictions might have voice lost at table

Benefits
Interoperability
No bridges, programming
simplicity
Significant grant funding
potential for e onomies of scale
ability to have robust/reliable system (LTE)
Better coordination/interaction
Dedicated management/tech staff

Regional partners using the same base level system
standardization
resiliency

Importance
LTE is more important
A system in general is important, but LA RICS is unknown if it is the best solution

Tech/Topography constraints in Rancho Palos Verdes: hopefully improve connectivity, line of site is bad
Federal government is taking over frequencies (T-Band)
Don't have enough information about LA RICS to know if it will be good for Duarte

In general, enhancing communication system is important, but technology and cost information is needed
Attractive because of the potential for more federal funds

public works, parks, utilities all use these systems and LA RICS may not mee their needs - concerns over the costs of maintaining 2 systems
police and fire have unique needs to support other users who are still part of the response team (e.g. public works)

some jurisdictions have frequencies not in the T-band
Don't want to turn over frequencies
Too many unanswered questions

Prevent
#1: Cost
maintaining 2 systems is too challenging
needs to meet our needs

LA RICS level of service may not be as good as current levels - not appealing even if it is cheaper
disposition of neighboring entitites - need neighbors to be in too
location and appearance of infrastructure
Aesthetics
community resistance
view impacts
If governance is overly onerous

City/county are dominating the process although the governance tried to combat this concern of perception
level of security between the frequencies

Integration of our current assets - ICIS

Any existing interoperable system should integrate

Issues need to be resolved in site access agreements

Assuming this will work
Requires a lot of effort
What if it does not work as promised
reduced coverage
leap of faith: caluclated risk

Cost effectiveness
What if it is less nimble/responsive to a given jurisdiction's needs

Local control/support is known, LA RICS is a black box
Cities are skeptical of any regional systems because they are not tailored
You can't have it both ways and you'd give up local control, but it may be worth it

Variables
Radios: recognizes who is using the system
Hazard: attractive if a benefit is received, does not account for neighbor relationships
Sworn: may not reflect actual use
<don't want a variable that penalizes or discourages use for an incident>
Dispatch: somewhat representative, but only captures police/fire

Channels: consider dedicated instead of accessible
<usage in general for day to day>
Service population: too much fluctuation, not the best indicator, no accurate measure
Residential population: possibly not reflective
Land Area: possibly not reflective, topography is different.

Appendix E. Member Outreach – Meeting Poster

LA-RICS

Should the following variables be used in allocating my annual operating cost?

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system			
Agency hazard risk			
Sworn personnel in the agency			
Agency dispatch volume			
Agency data usage			
Number of accessible channels			
Agency provided infrastructure credits			
Agency service population (residential + employment population)			
Agency residential population			
Agency land area			

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Appendix F. Member Outreach – Poster Photos

LA-RICS

Should the following variables be used in allocating my annual operating cost?

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	● ● ● ● ●		
Agency hazard risk		● ● ● ●	
Sworn personnel in the agency	●	● ● ●	●
Agency dispatch volume	● ● ● ● ●		
Agency data usage	● ● ● ● ● ●		
Number of accessible channels			● ●
Agency provided infrastructure credits	● ● ● ● ●	●	
Agency service population (residential + employment population)		● ●	●
Agency residential population		● ● ●	●
Agency land area		● ●	● ● ●

PMC

BALDWIN PK, AZUSA, REDONDO, LA SCHOOLS POLICE, MONTEBELLO, HERMOSA

MEETING #1

1.

- HERE FOR MORE INFO,

NOPA'S TABLE:
- BALDWIN PK
- AZUZA
- PEDONDO BEACH
- LA SCHOOLS POLICE
- MONTEBELLO
- HERMOSA

- LEARN MORE
  - YES, LIKE CONCEPT
  - NO, NOT COMING SOON

- NOT BUILT YET! SCREWED UP
  NEED REGIONAL SOLUTIONS!
  SOON

- BENEFICIAL, BUT NEED IT NOW
  HAVE BUILT UP SYSTEM ALREADY
  COST IS A BIG QUESTION
- HAVE ICIS, WORKING WELL
- PART OF SOUTH BAY COMMUNICATIONS
  VERY HAPPY W/ SYSTEM
  AFRAID OF LOSING SERVICE
  CONDUCTING INTERNAL ANALYSIS

COST + SERVICE

LA-RICS

Should the following variables be used in allocating my annual operating cost?

Abby's Group WED

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system		●●●●	●●●
Agency hazard risk		●●●●●	
Sworn personnel in the agency	●●●●●		●
Agency dispatch volume		●●●●	●●
Agency data usage	●	●●●	●
Number of accessible channels	●		●●●●
Agency provided infrastructure credits	●		●●●●
Agency service population (residential + employment population)	●●	●	●
Agency residential population	●●●●●		
Agency land area		●●●●	

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Covina - talk to other jurisdictions

Whittier - interoperability
affordability
system components

La Verne - too many unknowns
- finance system
- misinformation

Culver City - RICS should be better than IS/S
building penetration is an issue

Cerritos - cost

Norwalk - unknown costs
who are the users

ARW ①
WED

LA-RICS

Should the following variables be used in allocating my annual operating cost?

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	●●	●	●
Agency hazard risk		●●●●	
Sworn personnel in the agency	●	●	●
Agency dispatch volume	●	●●●	●●
Agency data usage		●●	●●●
Number of accessible channels	●●	●	●●
Agency provided infrastructure credits	●		● ●●
Agency service population (residential + employment population)	●●	●	●
Agency residential population	●	● ●●	● ●
Agency land area		● ●	●

ANDI'S GROUP WED

SIGNAL HILL - CAN BE IF IT WORKS
OUT
- ON THE FENCE - OTHER
OPTIONS

LONG BEACH - CITY THINKS ITS GOOD
BUT YET TO BE CONVINCED

VERNON - MAY OR MAY NOT BE

HUNTINGTON PARK - IMPORTANT, BUT
YET TO SEE BENEFITS

- GOING TO HAVE TO GIVE UP NEW
SYSTEM
- WHAT DOES IT MEAN DAY-TO-DAY
- TOO EXPENSIVE - COULD GET OUT

- SYSTEM NEED MINIMUM FOR INTERRUPTIBILITY

#1 ANDI

> GOOD IN THEORY
  - HIDDEN FEES?
  - LOCAL REPAIRS
) HIDDEN COSTS

> ANNUAL MAINTENANCE.

> LONG TERM COSTS?

> DOWNEY - POOR INTEROPERABILITY.

> EQUIP. CONCERNS - ANTIQUATED
  - FUTURE UPGRADES?

> HOW TO ADDRESS NONE PARTICIPATION.

> PRICE POINT *

NOLAN /

LA-RICS

Should the following variables be used in allocating my annual operating cost?

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	●●● ●		
Agency hazard risk		●● ● ● (B/C EVERYONE HAS THE SAME TYPE OF HAZARDS.)	
Sworn personnel in the agency		●●● ● ● (B/C THERE A LOT OF SWORN WHO DO NOT USE RADIOS.)	
Agency dispatch volume	● ● ●	● ●	
Agency data usage	●●● ● ● (MORE DATA USE = MORE $ PAID)		
Number of accessible channels		●●● ● ●	
Agency provided infrastructure credits	●● ●● ● (B/C $ HAS BEEN SPENT ON A GREAT SYSTEM & CREDITS SHOULD BE GIVEN.)		
Agency service population (residential + employment population)		●● ● ●	
Agency residential population	●●●	● ●	
Agency land area	●	● ● ●	

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> County Operators
  - Switching to County.
  - Advanced Level
  - Benefit to Pasadena.

> Pasadena ICI's
  - Losing Coverage
  - Double Paying.

> Interconnection b/w ICIS + RICS
  - How will it play w/ existing systems?

> Will existing infras. be credited to LA-RICS
  - Compatibility.

ANA
11/21/13
(1)

LA-RICS

Should the following variables be used in allocating my annual operating cost?

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	●● ●●		
Agency hazard risk			●● ● ●
Sworn personnel in the agency	● ●		●●
Agency dispatch volume	●	●	●●
Agency data usage	● ● ●		●
Number of accessible channels	● ● ● ●		
Agency provided infrastructure credits	● ● ● ●		
Agency service population (residential + employment population)	● ● ●		
Agency residential population	● ● ●	●	
Agency land area	●		●●

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(THURS)

ABBY'S TABLE

SANTA CLARITA → upgraded this year
radios
high speed network/independant

BURBANK - ICIS - 10 yrs.
Trunked system / T-BAND
interoperable

Glendale - ICIS - 10 yrs.

P25

LACTY -

Benefits - Interoperability *

- no real advantage to one master system
  - systems just need to communicate

two-way is key

ARW
Thurs

LA-RICS

Should the following variables be used in allocating my annual operating cost?

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	●● ●		● ● ●
Agency hazard risk	●	● ●	● ●
Sworn personnel in the agency		●	● ● ● ●
Agency dispatch volume	● ●		● ● ● ●
Agency data usage	● ●	●	● ● ● ●
Number of accessible channels	● ●		● ● ●
Agency provided infrastructure credits	● ● ●		● ● ● ●
Agency service population (residential + employment population)	X	●	● ● ● ●
Agency residential population	● ●		● ● ● ●
Agency land area	● ●		● ● ●

ANDI - THURS.

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#1
ANDI

- ISIS MEMBERS
  - ALREADY HAVE SYSTEM
  - WOULD NOT WANT TO BUILD FROM
- CRITICAL CONSIDERATION

- WHAT IS THE BENEFIT ~~FOR~~ TO WAITING BESIDES JUMPING ON A NEW SYSTEM NOW?
- INVESTED A LOT OF MONEY IN ISIS
- NEW RADIO PLAN (SAN GABRIEL)
  - MAKE SURE IT IS EASY TO OPERATE
  - USER-FRIENDLY

BARRIERS

- COST - HOW MUCH EACH CITY WILL HAVE TO COME UP WITH

	SM	C	C	
1)	Y	Y	Y	★
2)	M	M	N	
3)	Y	N	Y	
4)	Y	Y	Y	★
5)	Y	Y	Y	
6)	Y	Y	Y	★
7)	Y	Y	Y	★
8)	N	N	N	
9)	N	N	N	
10)	M/N	M	M	

VARIABLE RESULTS

HAZARD CONNECTED TO #1 (PADIOS)

ALSO CONNECTED TO PADIOS

MORE ACTIVITY SO MORE MAINTENANCE - use already in Complex

- related to call volume

MEETING #2
VIRTUAL
GROUP

SANTA MONICA — OMN LMR

~~TORRANCE~~

GARDENA — RCC — SOUTH BAY RADIO NEEDS

COMPTON FIRE

SM — POTENTIAL BENEFIT ACROSS REGION
PURCHASING POWER
COMMON PLATFORM

— FUNDING + COSTS
- INITIAL + ONGOING
- TECHNOLOGY QUESTIONS
HOW THAT IS DEVELOPED

- ALOT RIDING ON WHETHER LTE CAN ACCOMODATE VOICE

— SYSTEM COVERAGE?
- WHO PAYS FOR

LA-RICS

Should the following variables be used in allocating my annual operating cost?

Variable	Yes	No	Maybe
Number of agency radios/high speed data units connected to the system	●●●●●		
Agency hazard risk	●●	●	●●
Sworn personnel in the agency		●●●	●●
Agency dispatch volume	●●●	●	●
Agency data usage	●●●●●		
Number of accessible channels			●●●●●
Agency provided infrastructure credits	●●●●		●
Agency service population (residential + employment population)	●●●	●	●●
Agency residential population	●●●		●●
Agency land area	●●		●●

NANCY THURSDAY

BENEFITS

- INTEROPERABILITY
  - NO BRIDGES, PROGRAMMING
  - SIMPLICITY
- SIGNIFICANT GRANT FUNDING
- POTENTIAL FOR ECONOMIES OF SCALE
- ABILITY TO HAVE ROBUST/RELIABLE (SYSTEM)
  → LTE
- BETTER COORDINATION/INTERACTION
- DEDICATED MANAGEMENT/TECH STAFF
- REGIONAL PARTNERS USING THE SAME BASE LEVEL SYSTEM
- STANDARDIZATION
- RESILIENCY

NG 1
NG 2

MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

SPECIAL FINANCE COMMITTEE MEETING

Thursday, January 9, 2014 ● 1:00 p.m.
LA County Sheriff's Headquarters, Media Conference Room
4700 W. Ramona Blvd., Monterey Park, CA 91754

Official Voting Members Present:

Ed Roes, City of Los Angeles Administrative Office
Stephen Sotomayor, Chair, representative for City of Los Angeles Police Department
Dave Culver, representative for the Los Angeles County Sheriff's Department
Karoly Fruhwirth, representative for Los Angeles County Department of Health Services
James Alther, representative for the LAUSD Police Department
Olivia Valero, representative for City of Long Beach
David Lantzer, representative for Los Angeles Area Fire Chiefs' Association
Joe Leonardi, representative for Los Angeles County Police Chiefs Association
Daniel Jordan, representative for California Contract Cities Association
Eric E. Tsao, representative for City of Torrance, At Large #1
Erick Lee, representative for Culver City, At Large #2
Greg Simay, Vice Chair, representative for City of Burbank, At Large #3
Steve Smith, representative for City of Covina, At Large #4

Representatives For Official Voting Members Present:

Joshua Drake, representing Matias Farfan for City of Los Angeles Chief Legislative Analyst Office
Nancy Ramirez, representing James Alther for LAUSD Police Department

Others Present:

Susy Orellana-Curtiss, LA-RICS
Truc Moore, County Counsel

Official Voting Members Absent:

Ronnie Villanueva, representative for City of Los Angeles Fire Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst
Jan Takata, County of Los Angeles Chief Executive Office
Doug Cline, representative for County of Los Angeles Fire Department
James Alther, representative for Los Angeles Unified School District

AGENDA ATTACHMENT 1

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Chair Stephen Sotomayor took roll call, quorum was reached.

III. REPORTS –

Executive Director Mallon was absent for the meeting. Susy Orellana-Curtiss provided an update on the status of LTE System, LMR System, and Grant Funding.

Ms. Orellana-Curtiss discussed the Draft Cost Allocation Working Paper, which was Item #7 from the JPA Board of Directors meeting, held on January 8, 2014, as well as comments regarding the draft allocation will be reserved as a discussion item.

Ms. Orellana-Curtiss stated that negotiations for the LTE procurement were ongoing. In regards to the LMR project, the work is ongoing and there were no change orders or changes since the last meeting report.

There were also no changes to the grant funding status since the previous month's meeting report.

IV. NEW BUSINESS – None

V. OLD BUSINESS –

1. Review PMC's Work Product

Chair Sotomayor introduced Derek Wong of PMC to discuss the results of the Stakeholder 2 workshop that was held in late December 2013. The purpose of the second stakeholder meeting was to review variables presented at the first stakeholder meetings and assign a weight in terms of importance to each variable that would drive the cost for the funding plan.

There were two common themes resulting from both Stakeholder 1 and Stakeholder 2 meetings. There was a strong preference to use variables associated with usage (or potential usage). There were policy and technical questions, as listed on page 1 of the LA-RICS Finance Committee Meeting Stakeholder #2 Meeting Summary ("Summary"), regarding how to measure usage and other costs associated with the plan.

At the Stakeholder 2 meeting, there were several suggestions on a funding plan split, not only between the LMR and LTE systems, but also to split the cost allocations within each system by 1) capital costs and 2) operations and maintenance.

Mr. Wong described how the Stakeholder 2 meeting was organized by forming small groups of individuals from cities that work in the same jurisdictions. The information found on page 3 of the Summary captures the data derived from the variable weighting exercise. Annual Dispatch Call Volume had the highest average rating for the LMR and LTE systems. Questions arose concerning infrastructure credit were also brought up at the Second Stakeholder meeting.

In regards to the LTE Metrics, the Maximum Available Data was difficult to determine with respect to cost factors because many jurisdictions were currently using an unlimited data plan. When the Maximum Available Data is removed from the LTE metrics and the remaining factors are re-adjusted, the Average Daily Data Use increases and represent the highest level of influence among the variables.

There were questions regarding the LMR metrics Annual Dispatch Call Volume because the figures were self-reported by agency and not independently verifiable. The figures could be biased and the numbers could be misrepresented especially among 80+ agencies. PMC indicated that agencies surveyed using other interoperable systems used the number of radios, population, or service area as determinants as opposed to usage. Proportionate use is favored.

There was a discussion concerning use of text, which would require fewer dispatchers and lowers personnel costs, or voice, as preferred by a smaller agency to determine personnel geographic location. It is important to build a funding model that will not hinder operational needs. San Gabriel Chiefs, roughly 1/3 of LA County chiefs, would prefer infrastructure credit for ICIS and may choose ICIS over LA-RICS. A request was made to add more weight to infrastructure credit to entice cities to use LA-RICS. ICIS' model is difficult for LA-RICS to compete with because, assuming that a participating city can build their own radio system and has spectrum, and there is a low incremental cost for using ICIS ($40,000/year). Additional benefits to using ICIS would be that cities can add their own towers and the system would be operable for many years without capital replacement, however, some cities cannot build their own system and when the capital replacement becomes necessary, it would be costly to an agency. Another factor that would make LA-RICS competitive is the potential to use voice and data over what may become an obsolete radio system. Investment in LA-RICS in conjunction with ICIS could be less than the cost of replacing the ICIS system.

Infrastructure credit would not change the cost allocation but the assumption that ICIS infrastructure credit as having no value would drive member costs up. Applicable infrastructure credit could be decided by the committee at a later date. Discussion regarding infrastructure credit is limited and PMC should address it.

Chair Sotomayor discussed the natural migration pattern onto LA-RICS. In the future, agencies' radio systems have end of life which may occur during the 5-year build out of the LA-RICS system, at which point a need for 700 MHz or 800 MHz may be needed that LA-RICS can provide. In regards to LMR, agencies would use their existing systems to the point where they reach end of life and then migrate onto the LMR system for regional needs for emergency and day-to-day use. With respect to LTE, if we use infrastructure credit and charge for land, costs would be greater than using a commercial carrier at a rate of $30/month, making it pointless to build out the LTE system. There are hopes that both systems will be paid out with the maximum amount of grant funding that would leave O&M costs to be paid by members. The question was posed what would happen to an agency that uses ICIS and joins LA-RICS membership in the future vs. an agency that joins LA-RICS from the beginning and paid O&M costs. For instance, LA City's system's end of life is anticipated to occur in 2016. The question for the city would be at what point would it be best for the city to migrate onto the LA-RICS

system and would this affect the cash flow. Migration with an existing system could potentially offset cost concerns. Ultimately, the end goal is for all agencies to join but do more outreach and find out what agencies have to offer and the worth of what they have to offer.

Chair Sotomayor went on to state that the funding plan, at the end of the comment period, may or may not be approved. If it is approved, agencies can still opt out of the LA-RICS membership. There is another period where members can vote on the revised funding plan. What is the fewest number of agencies in the membership to consider the system "regional"? Another issue with the funding plan is that it is based on full participation. Questions include: Does the funding plan take into consideration when the agencies will join; can the infrastructure credit be added to the plan, what makes most sense to agencies, financially? Use is a good way to determine the value of the system and looking at the system regionally. There is an incentive for agencies where region costs overlap because cost will go down. There are concerns over what the backbone system is guaranteeing such as when there are coverage holes.

Chair Sotomayor suggested defining Infrastructure credit between LMR and LTE. Also, it may be beneficial to use the migration plan for cost benefit for the agencies. When should agencies transition and how would the cash flow be affected?

Chair Sotomayor recommended that that long-term operational needs of the system be identified. A committee member questioned if the committee was to vote if usage was to be a cost as a primary or just a discussion. Chief Sotomayor confirmed that only a discussion was to take place.

PMC was expected to gather additional information regarding infrastructure credit by LMR and LTE and either meet with the Finance committee again or send the information to the committee due to difficulty of the committee to reconvene. Also, PMC will provide the migration plan (outstanding deliverable) for LMR and eventually the plan for LTE if awarded after negotiations.

Committee Member Greg Simay stated that Board Member LeRoy Jackson felt that under participation would occur in the South Coast cities. Whittier and Glendale were inconvenient locations for workshops. Pat Mallon recommended that a meeting be scheduled in Torrance.

Susy Orellana-Curtiss, LA-RICS staff, said that copies of sign-in sheets and questionnaires from the Stakeholder meeting would be provided to the Finance Committee. Thirty (30) agencies participated in the stakeholder meeting however multiple representatives attended from the same agencies. Multiple contract cities assume that the County will be working on their behalf. Once the County's allocation has been determined, how will the allocation be divided amongst the contract cities? After LA-RICS staff met with Katz and Associates, it was understood that many of these cities were going to wait until the funding plan numbers are available.

Due to miscommunication or misinformation, it would beneficial to reengage PMC and meet with the agencies who show lack of interest in the system or have questions regarding the LTE

system and provide these agencies with a Questions & Answers sheet so that all agencies are properly informed. In addition, communication between all parties within an agency should be improved. A single point of contact should be established with LA-RICS personnel who will disseminate all appropriate information to all involved parties within an agency.

PMC was expected to be provided with information in a timely manner and develop initial numbers to present at the next meeting. If the numbers were not available for the next scheduled meeting, the Finance Committee would hold a special meeting at a later date. Initial cost figures were to be discussed at the next stakeholder meeting.

One committee member raised the question as to how the Finance Committee meeting locations are determined. Susy Orellana-Curtiss indicated that the locations are based solely on availability.

VI. PUBLIC COMMENT – None

VII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 2:08 p.m. by consensus.

The next special meeting date to be determined.

MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

SPECIAL FINANCE COMMITTEE MEETING

Thursday, January 30, 2014 ● 1:00 p.m.
LA County Fire Department Headquarters, Training Room 25
1320 N. Eastern Ave., Los Angeles, CA 90063

Official Voting Committee Members Present:

Ed Roes, representative for City of Los Angeles Administrative Office
Stephen Sotomayor, Chair, representative for City of Los Angeles Police Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst
Doug Cline, representative for Los Angeles County Fire Department
Dave Culver, representative for Los Angeles County Sheriff's Department
Kay Fruhwirth, representative for Los Angeles County DHS/EMS
Olivia Valero, representative for City of Long Beach
Joe Leonardi, representative for Los Angeles County Police Chiefs Association
Daniel Jordan, representative for California Contract Cities
Eric E. Tsao, representative for City of Torrance, At Large #1
Erick Lee, representative for Culver City, At Large #2
Greg Simay, Vice Chair, representative for City of Burbank, At Large #3
Steve Smith, representative for City of Covina, At Large #4

Representatives For Official Voting Committee Members Present:

Nancy Ramirez, representing James Alther, Los Angeles Unified School of Police

Others Present:

Pat Mallon, LA-RICS
Susy Orellana-Curtiss, LA-RICS
Truc Moore, County Counsel
Derek Wong, PMC
Ana Nolan, PMC

Official Voting Committee Members Absent:

June Gibson, representative for the City of Los Angeles Fire Department
Jan Takata, representative for County of Los Angeles, Chief Executive Office
James Alther, representative for Los Angeles Unified School of Police
Doug Cline, representative for County of Los Angeles Fire Department
Cynthia Evans, representative for County of Los Angeles Sheriff's Department
Kay Fruhwirth, representative for County of Los Angeles Department of Health Services

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Chair Stephen Sotomayor took roll call, quorum was reached. Committee Member Eric Lee was noted as arriving after oral introductions were made.

III. REPORTS – None

IV. NEW BUSINESS – None

V. OLD BUSINESS –

1. **Action Item: Review of Funding Plan Survey.**

Chair Sotomayor and Executive Director Pat Mallon introduced Derek Wong, PMC Consultant, to go over the Draft Proposed Funding Plan (handed out during the meeting).

Mr. Wong shared documents developed regarding the Proposed Funding Plan that were presented at last week's stakeholder workshop. He stated that it was evident that stakeholders wanted to refine the data. PMC put together a follow-up survey for everyone on the contact list, which he hoped would be returned in a relatively quick manner. The data received from the follow-up survey will help refine and revise the data from the November survey. He referred to the meeting agenda which included LA-RICS Survey #2 and how it provides the Committee Members a second chance to review/refine the previous data submitted. He recapped how the theme of the first workshops was to generate variables that fed into the Funding Plan. The second workshop was to develop the weightings of variables; and the third workshop was to distribute the actual draft Funding Plan.

Ana Nolan, PMC Consultant, reported on stakeholder meetings conducted in Glendale, Whittier and Torrance and referred to LA-RICS Survey #2 Agenda, Attachment 1. She said the meetings concluded with Q & A sessions wherein they were able to extrapolate general themes heard from stakeholders. The first theme was about how data was used in the Draft Funding Model, as well as definitions of key variables. This resulted in the follow-up survey discussed by Mr. Derek Wong earlier. The second theme was about secondary responders and the role of contract cities. Participants asked about the capability of the LA-RICS system and how to handle secondary responders such as public works, utilities, transit, and other municipal services. In response, PMC staff indicated the system is designed to handle both public safety and secondary responders. As to contract cities, the cost of public safety use of the system will come through their contracts with Sheriff's and Fire, and if they want to include additional radios or units to the system, the cost will be assumed by the agency. The third theme was the validation/confirmation of the opt-in/opt process. Participants wanted to get a sense of the timeline by which their agency was required to make a decision regarding participate in LA-RICS. They also inquired about the process once the system is up and running to ensure that their costs are in line with the services received. PMC staff stated that once the Funding Plan is adopted, an agency will have no less than 35 days to opt-out of the JPA. If the Funding Plan needs to be revised substantially, resulting in increased financial

obligations for Committee Members, they will then have additional 45-days to opt-out. The fourth theme was about coverage and technology clarifications. Participants asked about considerations for future technology and programming coverage needs. PMC staff indicated that system-wide coverage is about 95% and that next generation of technology was considered in the future funding cost. The fifth theme was about confidence in available grant funding. Stakeholders inquired about the confidence LA-RICS has in securing the grant funding needed. Additional clarification was also requested on what costs were included in the operations and maintenance category. To date, the JPA has secured between $75 and $80 million in funding, and will be eligible for additional funding once the contract is secured. The grants cover much of the upfront infrastructure cost for both LMR and LTE systems.

Executive Director Pat Mallon explained that the first workshop was held to identify the matrix that would need to be considered in the cost model. The second was to determine the weighting of these matrices. The third was to take the data derived from the first questionnaire and put them into the matrix as they were applied.

Executive Director Mallon referred to the LA-RICS Survey #2 and remarked that the survey participants misunderstood some of the questions. As an example, Executive Director Mallon stated how the one city reported over a half a million annual incidents dispatched. The numbers did not seem to be reasonable, so staff took another look and at the other information derived from the survey. It was discovered that information was inconsistent from one agency to another. In order to make the data comparable, staff made a decision to use the actual number of radios in the inventory. The kind of follow-up information that LA-RICS is soliciting right now is due back on Monday and will be incorporated in time to the Funding Plan that will be presented to the Board on Thursday. From a timeframe standpoint, LA-RICS is at a critical junction: once the Funding Plan is presented to the Board, we have to allow 60 days for Member comments before the Board can actually adopt the Funding Plan. Once the Board adopts the Funding Plan, Members have 35 days from that point to opt-out. Following that opt-out period, if there is a change in the Funding Plan resulting in substantial increase to Member's contribution; Members have an additional 45 days to opt-out.

In order to start moving forward with the project, particularly the LTE project, LA-RICS has to start the first 60-day period, then 35-day opt-out period, and potentially another 45-days beyond that Another document that was released was the LMR and LTE costs explanation. From the LMR standpoint, the operation and maintenance forecast was based on the contract we have in place with Motorola Solutions; capital replacement cost was a determination made by PMC, which would be used to develop a System Refresh Reserve.

Mr. Wong stated that the document Executive Director Mallon referred to was part of a Power Point Presentation used in last week's workshop. He gave an overview of the cost components for the LMR and LTE systems that fed into the Funding Model.

Committee Member Greg Simay brought up two items: 1) Impact on an agency subscriber. If an agency joins LA-RICS, does it have to replace subscriber units, does it have to reprogram them. What impact, if any, is there on the pieces of equipment that the agency is responsible for; that would be an indirect cost, but cost impact just the same. 2) What is the likelihood of

further system improvements? You have a system that is built under a contract, whether some of them are LTE. But in the course of testing it out, how likely is there to be significant additional capital investment just to get everything right? What impact would that have?

But when it comes to the LA-RICS expenses, he thinks that LA-RICS need a realistic estimate for inflation that would not stray too far from either direction because inflation could really influence the economics. The one percent is too low; three percent, at least by the efficiency of the statistics, might be on the far edge of it. The price inflator for the actual equipment under consideration would be the most useful, what the inflation would be for the industry that affects most LA-RICS, not so much what is going on in the wider economy. We'll need a better handle on all those things before we can be sure we've caught everything.

Mr. Wong stated that Committee Member Simay brought up some very good points. He also stated that the three percent inflator came from a construction index and not the broader economy, although not sure if it is a telecom construction index.

Executive Director Mallon reported that regarding the LTE cost, it is not very difficult to recognize that a $16 million a year operating fund for potentially 10,000 data subscriber units is going to be a very difficult cost model to sustain. I have had some discussions and have a follow up telephone conversations with the executive staff of FirstNet, specifically to address the cost of maintenance and capital replacement fund. The LA-RICS LTE system is ready to be looked at as a sample for what the rest of the nation would build out for the public safety broadband network. FirstNet has indicated that the core that we were looking to install at the County Fire Community Control Facility would become one of four national cores and LA-RICS should not be expected to maintain that, or do the software upgrades. That should be a FirstNet cost.

Executive Director Mallon hopes that by the time PMC puts together the presentation that will actually be presented to the Board; the updated figures would have been incorporated into the handouts. He also referenced "infrastructure credits." At an annualized in-kind match of at $17.8 million a year and with 10,000 subscribers, it totals $15 a month per device. If you apply that $15 a month to the operational cost, the administrative cost, and the maintenance of the backhaul, there is a potential to drive the cost above a commercially-competitive rate.

Executive Director Mallon stated that to address Committee Member questions, LA-RICS continued its conversations with granting agencies about subscriber units. There are a number of agencies that have spent a significant amount of local capital to upgrade their radio systems to either narrowband, and in some instances, to P25. Some agencies have radios that are not compatible with the LA-RICS system, either the UHF T-Band channels or the 700 MHz. Those agencies are going to have to get some kind of a return on their investments before they can, in essence, abandon them. As to the other Committee question regarding future system improvement, it will be necessary. For the LTE system, it's going to be difficult because on August 30, 2015, LA-RICS' BTOP Grant is gone. So any improvement beyond that point will have to be done with local funds, perhaps with the assistance of FirstNet, if they are willing to step up. Those are both options. As far as the LMR system, it is hope that there is allocation of

UASI or SHSGP funds available to continue expanding or building out interoperability in Los Angeles.

Mr. Wong added that the capital replacement costs presented was not assumed to include any type of subsidy from grant funding. The full cost of capital replacement was used because of uncertainty of receiving additional grant funding. Chair Sotomayor concurred that it is an important point not to count on Federal grants every time. There is no reality that LA-RICS will still receive UASI allocations, SHSGP and other Homeland Security Grants to drive down the cost. He believes that a worst case scenario would be where all costs would have to be paid for by Authority Membership fees.

Executive Director Mallon was asked about a grant funding back-up plan. He stated that the LMR system contract has been structured in such a way that multiple Notices to Proceed (NTP) are required to move forward. Before a NTP is approved by the Board, LA-RICS has to demonstrate that funding is available. If the UASI monies are gone, then LA-RICS has to look at some other method of funding, or it stops. For the LTE system, LA-RICS has a grant but the big question is how to accumulate the $19 million in hard-match. For the soft-match requirement, LA-RICS has submitted to NTIA the value of the underlying property for the 232 sites, as well as some staff contribution that the County has put into the project. If sites begin to be lost because of local restrictions, then we'd lose the value of that underlying property and we'll have to make it up in hard-match.

Executive Director Mallon stated that the underlying value of all sites has been included in the calculation of In-Kind match. If infrastructure credit is in fact approved as a policy decision by the Board, the value of that site cannot be included in the match and will have to be made up some other way. If an agency is given a credit via cost savings, then somebody else has got to make it up with cash-match.

Committee Member Lee stated that if the sites are approved for a soft-match and infrastructure credits were agreed to be off the table, then that annualized in-kind match goes away? Executive Director Mallon stated that it does go away.

Executive Director Mallon explains that as the Authority Members begin using the system, they would start making payments. There is a little deviation with the issue of the hard-match. As the BTOP funds are spent, LA-RICS has to make up the hard-match. If $10 million is spent, LA-RICS has to match $1 million in hard-match. The project will have to begin developing some form of a collection from Authority Members or the project would have to go for a line of credit.

Executive Director Mallon was asked if cities would be able to use the LTE system with their mobile devices. This issue was also brought up during the stakeholder meetings, which is being developed. LA-RICS has a vendor who is developing a band 14 device but they are likely to be $1,200 to $1,400 a-piece.

Executive Director Mallon was also asked that if the LTE system is up and running, would any of the city data devices be able to connect to it. He confirmed that Band Class 14 devices will be able to connect.

Executive Director Mallon continued on to state that in the base contract, a price has been included to acquire modems that actually go into the data devices. The price could start from $1,900 and below, depending on the quantity purchased. Those are the devices that would need to go into police cars and fire apparatus to connect to Band Class14 for data. . Executive Director Mallon added that devices specified in the contract will operate on Band 14 and Band 13, which is Verizon Wireless. LA-RICS is working towards a roaming agreement that would allow use of the Verizon Wireless system to fill in those areas with less than acceptable reception. This agreement can be presumed to be at a cost for LA-RICS and also stated that FirstNet is also working on a roaming agreement with a commercial network system. The cost is not yet known because negotiations are still ongoing.

Committee Member Olivia Valero asked about the annual fee distribution of the 86 Committee Member agencies, 33 of which are contract cities. She questioned why the total cost distributed was only over 53 independent cities or jurisdictions. She went on to ask if the share of the contract cities will be based on the LA County share of 34%. Executive Director Mallon explained that data from cities served by the Sheriff's Department or by County Fire were already included in the County's allocation. For purposes of population, if a city was entirely served by Sheriff's and Fire, that population was included in the County's allocation. For those cities that are split, where they have their own police department and they use County Fire, the population was split 50-50, so in essence, cities are not double charge. Cities will not pay for their full population and then be charged again, as part of the County Fire. Additionally, if a city opts-out, and they participate as an independent city, for example with their own police department but the County Fire becomes a part of it, then the population to the fire department served needs to be included into the program.

Executive Director Mallon was asked about communication for contract cities with radios systems to contact public works and bus lines. He stated that the population would have already been included under the services for public safety, so if there are secondary responders, according to the latest survey for information on radios and data devices that they would use. They would be added into the number of user devices but would not affect the population, which is separate.

Executive Director Mallon stated that if MTA came onto the system, the same study performed for the school populations would be used. This includes looking at the average daily school population and then multiplied it by 75%, because they're only in school about ¾ of a year.

Mr. Wong was asked about the school district working year round, since LAUSD police work 365-days a year, why would they be considered at 75%? He answered that they looked at the number of population served and since the student population is there only ¾ of the year the consensus was the right amount to use was 75%. Executive Director Mallon stated that during breaks the school would be charged for the use of radios and the number of calls they would be dispatched but not for the population.

Mr. Wong explained that in regards to MTA, the assumption used was the resident equivalent, so that every ten passengers equal one resident. Executive Director Mallon used the City of Culver City bus line as an example. If they want to put their bus fleet on the system, they have already been assessed for their population.

Committee Member Daniel Jordan asked for clarification on whether in filling out the second survey, should contract cities like La Canada, where they think they have a couple of old radios in their EMS through Public Works, should they be included in the list under secondary responders. Executive Director Mallon said yes, because your contract services with the Sheriff and Fire district would incorporate your population. For the number of radios secondary responders would use and be register under the system, they would be assessed for those, but not for the basis of population.

Committee Member Olivia Valero asked if the number of dispatch call is the same as the number of services responded to by the public safety officer. Executive Director Mallon said yes. Mr. Wong added that these may have been answered differently in the first survey so the second survey was asked to get the exact specific type. Committee Member Lee said that this variable is very problematic because it is not independently verifiable or tracked by LA-RICS. Executive Director Mallon responded that it will be through the systems Network Operating Center. LA-RICS will know how many radios are in the system. For example, Beverly Hills has how many radios are registered to the system, how many radios are used on a daily basis, and the activity level. Committee Member Lee commented this pertains to talk time but not on the number of calls we went on and therefore questions why was this variable used. Executive Director Mallon responded this is the only place we have to be able to start from that is comparable between the cities. As time goes on and we can start pulling data directly from the system, we can reevaluate and perhaps change that metric. Mr. Lee asked if this is just a draft variable only and Executive Director Mallon responded that at this time, there is no other metric to rely upon. Committee Member Lee said talk time is a great variable. Executive Director Mallon responded there is no talk time today. Committee Member Lee asked if the intent is to use this as a surrogate until talk time is available and Executive Director Mallon said yes.

Chair Sotomayor added that for the next round of data collection, it can be more clearly designed and also JPA members can double check their numbers for accuracy. For example, there was inconsistency in the reporting agency data devices which skewed the numbers across the board.

Executive Director Mallon stated that the JPA needs to release the Funding Plan in order to open up the 60-day comments period. Issues raised by the Members will bu used to come up with a model options for the Board to consider. Adoption of the Funding Plan is needed in order to give a NTP for the LTE system. Construction needs to begin in the April timeframe, and if the Funding Plan is pushed to June – August, the LTE project may have to be shut down.

Executive Director Mallon stated that in order to supply the JPA with a description of the system and reports, the project can use the coverage study that was done for the LTE system

used in determining the 232 sites. The LTE system has to be completely done by August 2015. There is an extremely tight time constraint just to get 232 sites constructed, equipment installed, and turned on. The Funding Plan needs to be recommended and approved before the February 6, 2014.

The LMR system is reliant on the detailed design and can share coverage with the JPA; exact coverage depends on the final design.

Chair Sotomayor stated that he thinks this meeting is good for discussion but he is not sure that there is something fully vetted. Committee Member Simay stated that he would like LA-RICS not to focus on preserving the grant money and lose sight of the original objective which is to build a system that will succeed. The last thing wanted is to have the system end-up being more costly later on. Executive Director Mallon agrees, but if it is the decision of the Board to push out the beginning of construction on the LTE system, then LA-RICS may need to consider walking away from the project. He stated that on the Board Agenda for February 6, 2014, that there will be a discussion item of separated membership.

Executive Director Mallon was asked about costs associated with joining LA-RICS and responded as such:

- LMR system is P25 based, which is a standard architecture.
  - Cities would be expected to provide their own user equipment
- LTE system
  - Depending on the amount of enhancements that are required during the construction, with regard to the option of disguising poles or a more expensive option, and the available funding that remains at that point, LA-RICS would look at acquiring the user devices under the contract that could be distributed to the Authority Members.

Executive Director Mallon suggested that the Committee have a Special meeting early next week, since they are not able to recommend releasing the Funding Plan and open the 60-day comments period. Committee Members would have to submit their comments to PMC by Monday, February 3, 2014 (no guarantees that they will have all 88 responses by then) in order to present them to the Board at a Special meeting on February 13, 2014.

Committee Member Simay stated that since there are two opt-out rounds, those that stay the first round and say no to the second, will end-up with some costs, than if they opt-out the first round. Maybe agencies need a year-by-year Cash Flow table going into LA-RICS.

VI. PUBLIC COMMENT – None

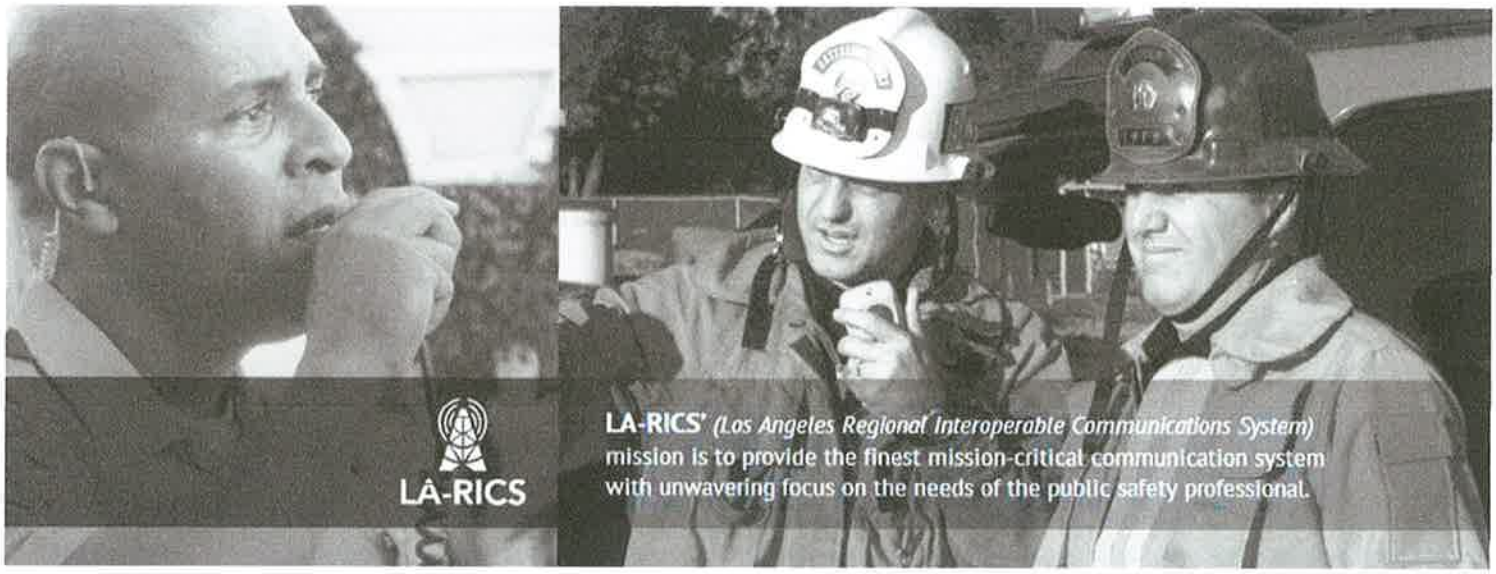
VII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 2:00 p.m. by consensus.

The next special meeting to be determined.

LA-RICS

DRAFT PROPOSED FUNDING PLAN



JANUARY 2014

PREPARED BY: PMC

LA-RICS Draft Proposed Funding Plan

Draft Fee Estimates

January 2014

LA-RICS

The following contains draft annual fee estimates by member for the LA-RICS Land Mobile Radio (LMR) and Long Term Evolution (LTE) systems. The fee estimates are calculated using the cost model described in the Cost Allocation Working Paper and from input provided through stakeholder workshops. Fee estimates are shown for LA-RICS members with their own independent police and/or fire services. Estimated fees for full contract cities are not calculated, as fees for full contract cities will be determined by each member's contract terms with Los Angeles County. Full contract cities include the following:

- City of Agoura Hills
- City of Artesia
- City of Bellflower
- City of Bradbury
- City of Calabasas
- City of Carson
- City of Cerritos
- City of Commerce
- City of Duarte
- City of Hawaiian Gardens
- City of Hidden Hills
- City of Industry
- City of La Canada Flintridge
- City of La Mirada
- City of La Puente
- City of Lakewood
- City of Lancaster
- City of Lawndale
- City of Lynwood
- City of Maywood
- City of Norwalk
- City of Palmdale
- City of Paramount
- City of Pico Rivera
- City of Rancho Palos Verdes
- City of Rolling Hills Estates
- City of Rosemead
- City of San Dimas
- City of Santa Clarita
- City of South El Monte
- City of Temple City
- City of Walnut
- City of Westlake Village

Fees are divided between LMR and LTE systems. Within each system, the fee is further divided to show the costs paid for by the fee. Within LMR, the fee is divided among three costs (administrative, operation and maintenance (O&M), and capital replacement). Within LTE, the fee is divided among five costs (administrative, O&M, capital replacement costs, annualized grant hard match, and annualized in-kind match). The following annual cost estimates are assumed for calculating annual member fees:

Annual Cost Estimates for LA-RICS LMR and LTE Systems

		Annual Cost by Category	Annual Cost by System	Annual Total Cost
LMR	O&M	$3,727,000	$11,657,000	$27,698,000
	Capital Replacement	$4,807,000		
	Administrative	$3,123,000		
LTE	Hard Match	$1,961,000	$16,041,000	
	In-Kind Match	$1,787,000		
	O&M	$5,717,000		
	Capital Replacement	$3,453,000		
	Administrative	$3,123,000		

City of Alhambra

LMR Cost Factor Summary				
	City of Alhambra	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	360	0.64%	5%	0.032%
Monthly Average Radios in Daily Use	180	0.67%	35%	0.234%
Annual Dispatch Call Volume	35,000	0.43%	40%	0.171%
Member Residential Population	83,700	0.75%	20%	0.149%
			Total LMR Cost Factor:	**0.585%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$18,000
LMR O&M Fee	$22,000
LMR Capital Replacement Fee	$28,000
Total LMR Fee:	**$68,000**

LTE Cost Factor Summary				
	City of Alhambra	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	360	0.64%	20%	0.127%
Average Daily Data Use (GB)	1.97	0.89%	60%	0.532%
Member Residential Population	83,700	0.75%	20%	0.149%
			Total LTE Cost Factor:	**0.809%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$25,000
LTE Hard Match	$16,000
LTE In-Kind Match	$14,000
LTE O&M Fee	$46,000
LTE Capital Replacement Fee	$28,000
Total LTE Fee:	**$129,000**
Combined Annual Fee[2]:	**$197,000**
Percent of Total LA-RICS Cost[2]:	**0.71%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Avalon

LMR Cost Factor Summary				
	City of Avalon	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	20	0.04%	5%	0.002%
Monthly Average Radios in Daily Use	10	0.04%	35%	0.013%
Annual Dispatch Call Volume	3,000	0.04%	40%	0.015%
Member Residential Population	3,800	0.03%	20%	0.007%
			Total LMR Cost Factor:	**0.037%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$1,000
LMR O&M Fee	$1,000
LMR Capital Replacement Fee	$2,000
Total LMR Fee:	**$4,000**

LTE Cost Factor Summary				
	City of Avalon	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	20	0.04%	20%	0.008%
Average Daily Data Use (GB)	0.08	0.04%	60%	0.023%
Member Residential Population	3,800	0.03%	20%	0.007%
			Total LTE Cost Factor:	**0.037%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$1,000
LTE Hard Match	$1,000
LTE In-Kind Match	$1,000
LTE O&M Fee	$2,000
LTE Capital Replacement Fee	$1,000
Total LTE Fee:	**$6,000**
Combined Annual Fee[2]:	**$10,000**
Percent of Total LA-RICS Cost[2]:	**0.04%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of Baldwin Park

LMR Cost Factor Summary				
	City of Baldwin Park	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	100	0.18%	5%	0.009%
Monthly Average Radios in Daily Use	30	0.11%	35%	0.037%
Annual Dispatch Call Volume	5,000	0.06%	40%	0.024%
Member Residential Population	75,800	0.68%	20%	0.135%
			Total LMR Cost Factor:	**0.206%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$6,000
LMR O&M Fee	$8,000
LMR Capital Replacement Fee	$10,000
Total LMR Fee:	**$24,000**

LTE Cost Factor Summary				
	City of Baldwin Park	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	100	0.18%	20%	0.037%
Average Daily Data Use (GB)	1.48	0.67%	60%	0.401%
Member Residential Population	75,800	0.68%	20%	0.135%
			Total LTE Cost Factor:	**0.573%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$18,000
LTE Hard Match	$11,000
LTE In-Kind Match	$10,000
LTE O&M Fee	$33,000
LTE Capital Replacement Fee	$20,000
Total LTE Fee:	**$92,000**
Combined Annual Fee[2]:	**$116,000**
Percent of Total LA-RICS Cost[2]:	**0.42%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Bell Gardens

LMR Cost Factor Summary				
	City of Bell Gardens	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	80	0.13%	5%	0.007%
Monthly Average Radios in Daily Use	70	0.25%	35%	0.088%
Annual Dispatch Call Volume	5,000	0.06%	40%	0.024%
Member Residential Population	42,200	0.38%	20%	0.075%
			Total LMR Cost Factor:	**0.195%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$6,000
LMR O&M Fee	$7,000
LMR Capital Replacement Fee	$9,000
Total LMR Fee:	**$22,000**

LTE Cost Factor Summary				
	City of Bell Gardens	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	80	0.13%	20%	0.026%
Average Daily Data Use (GB)	0.05	0.02%	60%	0.014%
Member Residential Population	42,200	0.38%	20%	0.075%
			Total LTE Cost Factor:	**0.115%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$4,000
LTE Hard Match	$2,000
LTE In-Kind Match	$2,000
LTE O&M Fee	$7,000
LTE Capital Replacement Fee	$4,000
Total LTE Fee:	**$19,000**
Combined Annual Fee[2]:	**$41,000**
Percent of Total LA-RICS Cost[2]:	**0.15%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Burbank

LMR Cost Factor Summary				
	City of Burbank	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	600	1.05%	5%	0.053%
Monthly Average Radios in Daily Use	270	1.02%	35%	0.359%
Annual Dispatch Call Volume	85,000	1.04%	40%	0.416%
Member Residential Population	104,400	0.93%	20%	0.186%
			Total LMR Cost Factor:	**1.013%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$32,000
LMR O&M Fee	$38,000
LMR Capital Replacement Fee	$49,000
Total LMR Fee:	**$119,000**

LTE Cost Factor Summary				
	City of Burbank	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	600	1.05%	20%	0.211%
Average Daily Data Use (GB)	2.32	1.05%	60%	0.629%
Member Residential Population	104,400	0.93%	20%	0.186%
			Total LTE Cost Factor:	**1.026%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$32,000
LTE Hard Match	$20,000
LTE In-Kind Match	$18,000
LTE O&M Fee	$59,000
LTE Capital Replacement Fee	$35,000
Total LTE Fee:	**$164,000**
Combined Annual Fee[2]:	**$283,000**
Percent of Total LA-RICS Cost[2]:	**1.02%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of Compton

LMR Cost Factor Summary	City of Compton	Percent of Total	Weight	Cost Factor
Total Actual Radios in Inventory	100	0.18%	5%	0.009%
Monthly Average Radios in Daily Use	70	0.26%	35%	0.091%
Annual Dispatch Call Volume	20,000	0.24%	40%	0.095%
Member Residential Population	97,100	0.87%	20%	0.173%
			Total LMR Cost Factor:	**0.369%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$12,000
LMR O&M Fee	$14,000
LMR Capital Replacement Fee	$18,000
Total LMR Fee:	**$44,000**

LTE Cost Factor Summary	City of Compton	Percent of Total	Weight	Cost Factor
High Speed Data Units	100	0.18%	20%	0.036%
Average Daily Data Use (GB)	0.26	0.12%	60%	0.071%
Member Residential Population	97,100	0.87%	20%	0.173%
			Total LTE Cost Factor:	**0.281%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$9,000
LTE Hard Match	$6,000
LTE In-Kind Match	$5,000
LTE O&M Fee	$16,000
LTE Capital Replacement Fee	$10,000
Total LTE Fee:	**$46,000**
Combined Annual Fee[2]:	**$90,000**
Percent of Total LA-RICS Cost[2]:	**0.32%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Culver City

LMR Cost Factor Summary				
	City of Culver City	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	220	0.39%	5%	0.020%
Monthly Average Radios in Daily Use	100	0.38%	35%	0.134%
Annual Dispatch Call Volume	32,000	0.39%	40%	0.155%
Member Residential Population	39,000	0.35%	20%	0.070%
			Total LMR Cost Factor:	**0.379%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$12,000
LMR O&M Fee	$14,000
LMR Capital Replacement Fee	$18,000
Total LMR Fee:	**$44,000**

LTE Cost Factor Summary				
	City of Culver City	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	220	0.39%	20%	0.079%
Average Daily Data Use (GB)	0.87	0.39%	60%	0.235%
Member Residential Population	39,000	0.35%	20%	0.070%
			Total LTE Cost Factor:	**0.383%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$12,000
LTE Hard Match	$8,000
LTE In-Kind Match	$7,000
LTE O&M Fee	$22,000
LTE Capital Replacement Fee	$13,000
Total LTE Fee:	**$62,000**
Combined Annual Fee[2]:	**$106,000**
Percent of Total LA-RICS Cost[2]:	**0.38%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of El Monte

LMR Cost Factor Summary

	City of El Monte	Percent of Total	Weight	Cost Factor
Total Actual Radios in Inventory	210	0.37%	5%	0.019%
Monthly Average Radios in Daily Use	140	0.53%	35%	0.187%
Annual Dispatch Call Volume	60,000	0.73%	40%	0.292%
Member Residential Population	113,900	1.02%	20%	0.203%
			Total LMR Cost Factor:	**0.701%**

LMR Annual Fee Summary [1]

LMR Administrative Fee	$22,000
LMR O&M Fee	$26,000
LMR Capital Replacement Fee	$34,000
Total LMR Fee:	**$82,000**

LTE Cost Factor Summary

	City of El Monte	Percent of Total	Weight	Cost Factor
High Speed Data Units	210	0.37%	20%	0.075%
Average Daily Data Use (GB)	1.00	0.45%	60%	0.271%
Member Residential Population	113,900	1.02%	20%	0.203%
			Total LTE Cost Factor:	**0.549%**

LTE Annual Fee Summary [1]

LTE Administrative Fee	$17,000
LTE Hard Match	$11,000
LTE In-Kind Match	$10,000
LTE O&M Fee	$31,000
LTE Capital Replacement Fee	$19,000
Total LTE Fee:	**$88,000**
Combined Annual Fee[2]:	**$170,000**
Percent of Total LA-RICS Cost[2]:	**0.61%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Gardena

LMR Cost Factor Summary	City of Gardena	Percent of Total	Weight	Cost Factor
Total Actual Radios in Inventory	350	0.62%	5%	0.031%
Monthly Average Radios in Daily Use	170	0.66%	35%	0.229%
Annual Dispatch Call Volume	72,000	0.88%	40%	0.351%
Member Residential Population	59,100	0.53%	20%	0.105%
			Total LMR Cost Factor:	**0.716%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$22,000
LMR O&M Fee	$27,000
LMR Capital Replacement Fee	$34,000
Total LMR Fee:	**$83,000**

LTE Cost Factor Summary	City of Gardena	Percent of Total	Weight	Cost Factor
High Speed Data Units	350	0.62%	20%	0.124%
Average Daily Data Use (GB)	0.58	0.26%	60%	0.156%
Member Residential Population	59,100	0.53%	20%	0.105%
			Total LTE Cost Factor:	**0.386%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$12,000
LTE Hard Match	$8,000
LTE In-Kind Match	$7,000
LTE O&M Fee	$22,000
LTE Capital Replacement Fee	$13,000
Total LTE Fee:	**$62,000**
Combined Annual Fee[2]:	**$145,000**
Percent of Total LA-RICS Cost[2]:	**0.52%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of Glendora

LMR Cost Factor Summary				
	City of Glendora	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	700	1.24%	5%	0.062%
Monthly Average Radios in Daily Use	510	1.94%	35%	0.680%
Annual Dispatch Call Volume	120,000	1.46%	40%	0.585%
Member Residential Population	50,400	0.45%	20%	0.090%
			Total LMR Cost Factor:	**1.417%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$44,000
LMR O&M Fee	$53,000
LMR Capital Replacement Fee	$68,000
Total LMR Fee:	**$165,000**

LTE Cost Factor Summary				
	City of Glendora	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	700	1.24%	20%	0.247%
Average Daily Data Use (GB)	0.03	0.01%	60%	0.009%
Member Residential Population	50,400	0.45%	20%	0.090%
			Total LTE Cost Factor:	**0.346%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$11,000
LTE Hard Match	$7,000
LTE In-Kind Match	$6,000
LTE O&M Fee	$20,000
LTE Capital Replacement Fee	$12,000
Total LTE Fee:	**$56,000**
Combined Annual Fee[2]:	**$221,000**
Percent of Total LA-RICS Cost[2]:	**0.80%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of Hermosa Beach

LMR Cost Factor Summary	City of Hermosa Beach	Percent of Total	Weight	Cost Factor
Total Actual Radios in Inventory	160	0.28%	5%	0.014%
Monthly Average Radios in Daily Use	70	0.25%	35%	0.087%
Annual Dispatch Call Volume	20,000	0.24%	40%	0.097%
Member Residential Population	19,600	0.17%	20%	0.035%
			Total LMR Cost Factor:	**0.233%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$7,000
LMR O&M Fee	$9,000
LMR Capital Replacement Fee	$11,000
Total LMR Fee:	**$27,000**

LTE Cost Factor Summary	City of Hermosa Beach	Percent of Total	Weight	Cost Factor
High Speed Data Units	160	0.28%	20%	0.055%
Average Daily Data Use (GB)	0.07	0.03%	60%	0.019%
Member Residential Population	19,600	0.17%	20%	0.035%
			Total LTE Cost Factor:	**0.109%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$3,000
LTE Hard Match	$2,000
LTE In-Kind Match	$2,000
LTE O&M Fee	$6,000
LTE Capital Replacement Fee	$4,000
Total LTE Fee:	**$17,000**
Combined Annual Fee[2]:	**$44,000**
Percent of Total LA-RICS Cost[2]:	**0.16%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Inglewood

LMR Cost Factor Summary				
	City of Inglewood	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	360	0.64%	5%	0.032%
Monthly Average Radios in Daily Use	230	0.88%	35%	0.307%
Annual Dispatch Call Volume	60,000	0.73%	40%	0.292%
Member Residential Population	110,600	0.99%	20%	0.197%
			Total LMR Cost Factor:	**0.829%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$26,000
LMR O&M Fee	$31,000
LMR Capital Replacement Fee	$40,000
Total LMR Fee:	**$97,000**

LTE Cost Factor Summary				
	City of Inglewood	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	360	0.64%	20%	0.127%
Average Daily Data Use (GB)	2.16	0.97%	60%	0.585%
Member Residential Population	110,600	0.99%	20%	0.197%
			Total LTE Cost Factor:	**0.909%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$28,000
LTE Hard Match	$18,000
LTE In-Kind Match	$16,000
LTE O&M Fee	$52,000
LTE Capital Replacement Fee	$31,000
Total LTE Fee:	**$145,000**
Combined Annual Fee[2]:	**$242,000**
Percent of Total LA-RICS Cost[2]:	**0.87%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of La Habra Heights

LMR Cost Factor Summary	City of La Habra Heights	Percent of Total	Weight	Cost Factor
Total Actual Radios in Inventory	100	0.18%	5%	0.009%
Monthly Average Radios in Daily Use	30	0.11%	35%	0.040%
Annual Dispatch Call Volume	5,000	0.06%	40%	0.024%
Member Residential Population	5,400	0.05%	20%	0.010%
			Total LMR Cost Factor:	**0.083%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$3,000
LMR O&M Fee	$3,000
LMR Capital Replacement Fee	$4,000
Total LMR Fee:	**$10,000**

LTE Cost Factor Summary	City of La Habra Heights	Percent of Total	Weight	Cost Factor
High Speed Data Units	100	0.18%	20%	0.035%
Average Daily Data Use (GB)	0.12	0.05%	60%	0.032%
Member Residential Population	5,400	0.05%	20%	0.010%
			Total LTE Cost Factor:	**0.077%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$2,000
LTE Hard Match	$2,000
LTE In-Kind Match	$1,000
LTE O&M Fee	$4,000
LTE Capital Replacement Fee	$3,000
Total LTE Fee:	**$12,000**
Combined Annual Fee[2]:	**$22,000**
Percent of Total LA-RICS Cost[2]:	**0.08%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Long Beach

LMR Cost Factor Summary				
	City of Long Beach	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	2,340	4.14%	5%	0.207%
Monthly Average Radios in Daily Use	1,230	4.68%	35%	1.640%
Annual Dispatch Call Volume	494,000	6.02%	40%	2.406%
Member Residential Population	464,700	4.14%	20%	0.829%
			Total LMR Cost Factor:	**5.082%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$159,000
LMR O&M Fee	$189,000
LMR Capital Replacement Fee	$244,000
Total LMR Fee:	**$592,000**

LTE Cost Factor Summary				
	City of Long Beach	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	2,340	4.14%	20%	0.828%
Average Daily Data Use (GB)	9.97	4.50%	60%	2.697%
Member Residential Population	464,700	4.14%	20%	0.829%
			Total LTE Cost Factor:	**4.354%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$136,000
LTE Hard Match	$85,000
LTE In-Kind Match	$78,000
LTE O&M Fee	$249,000
LTE Capital Replacement Fee	$150,000
Total LTE Fee:	**$698,000**
Combined Annual Fee[2]:	**$1,290,000**
Percent of Total LA-RICS Cost[2]:	**4.66%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Manhattan Beach

LMR Cost Factor Summary				
	City of Manhattan Beach	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	200	0.36%	5%	0.018%
Monthly Average Radios in Daily Use	90	0.35%	35%	0.121%
Annual Dispatch Call Volume	29,000	0.35%	40%	0.140%
Member Residential Population	35,200	0.31%	20%	0.063%
			Total LMR Cost Factor:	**0.342%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$11,000
LMR O&M Fee	$13,000
LMR Capital Replacement Fee	$16,000
Total LMR Fee:	**$40,000**

LTE Cost Factor Summary				
	City of Manhattan Beach	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	200	0.36%	20%	0.071%
Average Daily Data Use (GB)	0.78	0.35%	60%	0.212%
Member Residential Population	35,200	0.31%	20%	0.063%
			Total LTE Cost Factor:	**0.346%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$11,000
LTE Hard Match	$7,000
LTE In-Kind Match	$6,000
LTE O&M Fee	$20,000
LTE Capital Replacement Fee	$12,000
Total LTE Fee:	**$56,000**
Combined Annual Fee[2]:	**$96,000**
Percent of Total LA-RICS Cost[2]:	**0.35%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Montebello

LMR Cost Factor Summary				
	City of Montebello	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	340	0.60%	5%	0.030%
Monthly Average Radios in Daily Use	170	0.65%	35%	0.228%
Annual Dispatch Call Volume	44,000	0.53%	40%	0.213%
Member Residential Population	62,900	0.56%	20%	0.112%
			Total LMR Cost Factor:	**0.582%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$18,000
LMR O&M Fee	$22,000
LMR Capital Replacement Fee	$28,000
Total LMR Fee:	**$68,000**

LTE Cost Factor Summary				
	City of Montebello	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	340	0.60%	20%	0.120%
Average Daily Data Use (GB)	1.40	0.63%	60%	0.378%
Member Residential Population	62,900	0.56%	20%	0.112%
			Total LTE Cost Factor:	**0.610%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$19,000
LTE Hard Match	$12,000
LTE In-Kind Match	$11,000
LTE O&M Fee	$35,000
LTE Capital Replacement Fee	$21,000
Total LTE Fee:	**$98,000**
Combined Annual Fee[2]:	**$166,000**
Percent of Total LA-RICS Cost[2]:	**0.60%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of Palos Verdes Estates

LMR Cost Factor Summary				
	City of Palos Verdes Estates	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	60	0.11%	5%	0.006%
Monthly Average Radios in Daily Use	30	0.10%	35%	0.034%
Annual Dispatch Call Volume	8,000	0.10%	40%	0.041%
Member Residential Population	13,500	0.12%	20%	0.024%
			Total LMR Cost Factor:	**0.104%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$3,000
LMR O&M Fee	$4,000
LMR Capital Replacement Fee	$5,000
Total LMR Fee:	**$12,000**

LTE Cost Factor Summary				
	City of Palos Verdes Estates	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	60	0.11%	20%	0.022%
Average Daily Data Use (GB)	0.26	0.12%	60%	0.071%
Member Residential Population	13,500	0.12%	20%	0.024%
			Total LTE Cost Factor:	**0.118%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$4,000
LTE Hard Match	$2,000
LTE In-Kind Match	$2,000
LTE O&M Fee	$7,000
LTE Capital Replacement Fee	$4,000
Total LTE Fee:	**$19,000**
Combined Annual Fee[2]:	**$31,000**
Percent of Total LA-RICS Cost[2]:	**0.11%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of Pomona

LMR Cost Factor Summary				
	City of Pomona	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	350	0.62%	5%	0.031%
Monthly Average Radios in Daily Use	190	0.72%	35%	0.251%
Annual Dispatch Call Volume	120,000	1.46%	40%	0.585%
Member Residential Population	150,000	1.34%	20%	0.267%
			Total LMR Cost Factor:	**1.134%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$35,000
LMR O&M Fee	$42,000
LMR Capital Replacement Fee	$55,000
Total LMR Fee:	**$132,000**

LTE Cost Factor Summary				
	City of Pomona	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	350	0.62%	20%	0.124%
Average Daily Data Use (GB)	2.93	1.32%	60%	0.793%
Member Residential Population	150,000	1.34%	20%	0.267%
			Total LTE Cost Factor:	**1.184%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$37,000
LTE Hard Match	$23,000
LTE In-Kind Match	$21,000
LTE O&M Fee	$68,000
LTE Capital Replacement Fee	$41,000
Total LTE Fee:	**$190,000**
Combined Annual Fee[2]:	**$322,000**
Percent of Total LA-RICS Cost[2]:	**1.16%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of San Fernando

LMR Cost Factor Summary	City of San Fernando	Percent of Total	Weight	Cost Factor
Total Actual Radios in Inventory	110	0.20%	5%	0.010%
Monthly Average Radios in Daily Use	40	0.17%	35%	0.059%
Annual Dispatch Call Volume	15,000	0.18%	40%	0.071%
Member Residential Population	23,800	0.21%	20%	0.042%
			Total LMR Cost Factor:	**0.183%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$6,000
LMR O&M Fee	$7,000
LMR Capital Replacement Fee	$9,000
Total LMR Fee:	**$22,000**

LTE Cost Factor Summary	City of San Fernando	Percent of Total	Weight	Cost Factor
High Speed Data Units	110	0.20%	20%	0.039%
Average Daily Data Use (GB)	0.46	0.21%	60%	0.126%
Member Residential Population	23,800	0.21%	20%	0.042%
			Total LTE Cost Factor:	**0.207%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$6,000
LTE Hard Match	$4,000
LTE In-Kind Match	$4,000
LTE O&M Fee	$12,000
LTE Capital Replacement Fee	$7,000
Total LTE Fee:	**$33,000**
Combined Annual Fee[2]:	**$55,000**
Percent of Total LA-RICS Cost[2]:	**0.20%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of San Marino

LMR Cost Factor Summary	City of San Marino	Percent of Total	Weight	Cost Factor
Total Actual Radios in Inventory	80	0.13%	5%	0.007%
Monthly Average Radios in Daily Use	30	0.13%	35%	0.045%
Annual Dispatch Call Volume	11,000	0.13%	40%	0.053%
Member Residential Population	13,200	0.12%	20%	0.024%
			Total LMR Cost Factor:	**0.128%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$4,000
LMR O&M Fee	$5,000
LMR Capital Replacement Fee	$6,000
Total LMR Fee:	**$15,000**

LTE Cost Factor Summary	City of San Marino	Percent of Total	Weight	Cost Factor
High Speed Data Units	80	0.13%	20%	0.027%
Average Daily Data Use (GB)	0.29	0.13%	60%	0.079%
Member Residential Population	13,200	0.12%	20%	0.024%
			Total LTE Cost Factor:	**0.130%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$4,000
LTE Hard Match	$3,000
LTE In-Kind Match	$2,000
LTE O&M Fee	$7,000
LTE Capital Replacement Fee	$4,000
Total LTE Fee:	**$20,000**
Combined Annual Fee[2]:	**$35,000**
Percent of Total LA-RICS Cost[2]:	**0.13%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Santa Monica

LMR Cost Factor Summary	City of Santa Monica	Percent of Total	Weight	Cost Factor
Total Actual Radios in Inventory	1,100	1.94%	5%	0.097%
Monthly Average Radios in Daily Use	620	2.37%	35%	0.829%
Annual Dispatch Call Volume	125,000	1.52%	40%	0.609%
Member Residential Population	90,200	0.80%	20%	0.161%
			Total LMR Cost Factor:	**1.696%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$53,000
LMR O&M Fee	$63,000
LMR Capital Replacement Fee	$82,000
Total LMR Fee:	**$198,000**

LTE Cost Factor Summary	City of Santa Monica	Percent of Total	Weight	Cost Factor
High Speed Data Units	1,100	1.94%	20%	0.389%
Average Daily Data Use (GB)	2.01	0.91%	60%	0.543%
Member Residential Population	90,200	0.80%	20%	0.161%
			Total LTE Cost Factor:	**1.093%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$34,000
LTE Hard Match	$21,000
LTE In-Kind Match	$20,000
LTE O&M Fee	$62,000
LTE Capital Replacement Fee	$38,000
Total LTE Fee:	**$175,000**
Combined Annual Fee[2]:	**$373,000**
Percent of Total LA-RICS Cost[2]:	**1.35%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Signal Hill

LMR Cost Factor Summary				
	City of Signal Hill	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	100	0.18%	5%	0.009%
Monthly Average Radios in Daily Use	100	0.37%	35%	0.130%
Annual Dispatch Call Volume	7,000	0.08%	40%	0.033%
Member Residential Population	11,100	0.10%	20%	0.020%
			Total LMR Cost Factor:	**0.192%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$6,000
LMR O&M Fee	$7,000
LMR Capital Replacement Fee	$9,000
Total LMR Fee:	**$22,000**

LTE Cost Factor Summary				
	City of Signal Hill	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	100	0.18%	20%	0.036%
Average Daily Data Use (GB)	0.22	0.10%	60%	0.059%
Member Residential Population	11,100	0.10%	20%	0.020%
			Total LTE Cost Factor:	**0.114%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$4,000
LTE Hard Match	$2,000
LTE In-Kind Match	$2,000
LTE O&M Fee	$7,000
LTE Capital Replacement Fee	$4,000
Total LTE Fee:	**$19,000**
Combined Annual Fee[2]:	**$41,000**
Percent of Total LA-RICS Cost[2]:	**0.15%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of South Pasadena

LMR Cost Factor Summary				
	City of South Pasadena	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	150	0.26%	5%	0.013%
Monthly Average Radios in Daily Use	70	0.25%	35%	0.088%
Annual Dispatch Call Volume	21,000	0.26%	40%	0.102%
Member Residential Population	25,700	0.23%	20%	0.046%
			Total LMR Cost Factor:	**0.250%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$8,000
LMR O&M Fee	$9,000
LMR Capital Replacement Fee	$12,000
Total LMR Fee:	**$29,000**

LTE Cost Factor Summary				
	City of South Pasadena	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	150	0.26%	20%	0.052%
Average Daily Data Use (GB)	0.57	0.26%	60%	0.155%
Member Residential Population	25,700	0.23%	20%	0.046%
			Total LTE Cost Factor:	**0.253%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$8,000
LTE Hard Match	$5,000
LTE In-Kind Match	$5,000
LTE O&M Fee	$14,000
LTE Capital Replacement Fee	$9,000
Total LTE Fee:	**$41,000**
Combined Annual Fee[2]:	**$70,000**
Percent of Total LA-RICS Cost[2]:	**0.25%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

City of Vernon

LMR Cost Factor Summary				
	City of Vernon	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	260	0.45%	5%	0.023%
Monthly Average Radios in Daily Use	130	0.48%	35%	0.170%
Annual Dispatch Call Volume	5,000	0.06%	40%	0.025%
Member Residential Population	100	0.00%	20%	0.000%
			Total LMR Cost Factor:	**0.217%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$7,000
LMR O&M Fee	$8,000
LMR Capital Replacement Fee	$10,000
Total LMR Fee:	**$25,000**

LTE Cost Factor Summary				
	City of Vernon	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	260	0.45%	20%	0.090%
Average Daily Data Use (GB)	0.00	0.00%	60%	0.001%
Member Residential Population	100	0.00%	20%	0.000%
			Total LTE Cost Factor:	**0.091%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$3,000
LTE Hard Match	$2,000
LTE In-Kind Match	$2,000
LTE O&M Fee	$5,000
LTE Capital Replacement Fee	$3,000
Total LTE Fee:	**$15,000**
Combined Annual Fee[2]:	**$40,000**
Percent of Total LA-RICS Cost[2]:	**0.14%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

City of Whittier

LMR Cost Factor Summary	*City of Whittier*	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	370	0.64%	5%	0.032%
Monthly Average Radios in Daily Use	190	0.72%	35%	0.253%
Annual Dispatch Call Volume	60,000	0.73%	40%	0.292%
Member Residential Population	85,700	0.76%	20%	0.153%
			Total LMR Cost Factor:	**0.730%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$23,000
LMR O&M Fee	$27,000
LMR Capital Replacement Fee	$35,000
Total LMR Fee:	**$85,000**

LTE Cost Factor Summary	*City of Whittier*	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	370	0.64%	20%	0.129%
Average Daily Data Use (GB)	1.67	0.75%	60%	0.453%
Member Residential Population	85,700	0.76%	20%	0.153%
			Total LTE Cost Factor:	**0.735%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$23,000
LTE Hard Match	$14,000
LTE In-Kind Match	$13,000
LTE O&M Fee	$42,000
LTE Capital Replacement Fee	$25,000
Total LTE Fee:	**$117,000**
Combined Annual Fee[2]:	**$202,000**
Percent of Total LA-RICS Cost[2]:	**0.73%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

Inglewood Unified School District

LMR Cost Factor Summary				
	Inglewood Unified School District	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	20	0.03%	5%	0.002%
Monthly Average Radios in Daily Use	10	0.04%	35%	0.015%
Annual Dispatch Call Volume	6,000	0.07%	40%	0.028%
Member Residential Population	9,400	0.08%	20%	0.017%
			Total LMR Cost Factor:	**0.061%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$2,000
LMR O&M Fee	$2,000
LMR Capital Replacement Fee	$3,000
Total LMR Fee:	**$7,000**

LTE Cost Factor Summary				
	Inglewood Unified School District	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	20	0.03%	20%	0.007%
Average Daily Data Use (GB)	0.18	0.08%	60%	0.050%
Member Residential Population	9,400	0.08%	20%	0.017%
			Total LTE Cost Factor:	**0.073%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$2,000
LTE Hard Match	$1,000
LTE In-Kind Match	$1,000
LTE O&M Fee	$4,000
LTE Capital Replacement Fee	$3,000
Total LTE Fee:	**$11,000**
Combined Annual Fee[2]:	**$18,000**
Percent of Total LA-RICS Cost[2]:	**0.06%**

[1] *Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.*

[2] *Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.*

UCLA

LMR Cost Factor Summary				
	UCLA	*Percent of Total*	*Weight*	*Cost Factor*
Total Actual Radios in Inventory	180	0.32%	5%	0.016%
Monthly Average Radios in Daily Use	160	0.61%	35%	0.214%
Annual Dispatch Call Volume	125,000	1.52%	40%	0.609%
Member Residential Population	31,600	0.28%	20%	0.056%
			Total LMR Cost Factor:	**0.895%**

LMR Annual Fee Summary [1]	
LMR Administrative Fee	$28,000
LMR O&M Fee	$33,000
LMR Capital Replacement Fee	$43,000
Total LMR Fee:	**$104,000**

LTE Cost Factor Summary				
	UCLA	*Percent of Total*	*Weight*	*Cost Factor*
High Speed Data Units	180	0.32%	20%	0.064%
Average Daily Data Use (GB)	0.70	0.32%	60%	0.190%
Member Residential Population	31,600	0.28%	20%	0.056%
			Total LTE Cost Factor:	**0.310%**

LTE Annual Fee Summary [1]	
LTE Administrative Fee	$10,000
LTE Hard Match	$6,000
LTE In-Kind Match	$6,000
LTE O&M Fee	$18,000
LTE Capital Replacement Fee	$11,000
Total LTE Fee:	**$51,000**
Combined Annual Fee[2]:	**$155,000**
Percent of Total LA-RICS Cost[2]:	**0.56%**

[1] Administrative and O&M fees are ongoing. Capital replacement, hard match, and in-kind match costs are annualized over a 15-year period.

[2] Estimated fees are rounded to the nearest thousand. As such, the "Percent of Total LA-RICS Cost" figure may vary slightly from LMR and LTE cost factors.

MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

SPECIAL FINANCE COMMITTEE MEETING

Wednesday, February 19, 2014 ● 1:00 p.m.
LA-RICS Headquarters, Large Conference Room
2525 Corporate Pl., Monterey Park, CA 91754

Official Voting Members Present:

Ed Roes, City of Los Angeles Administrative Office
Stephen Sotomayor, Chair, representative for City of Los Angeles Police Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst
Jan Takata, County of Los Angeles Chief Executive Office
Doug Cline, representative for County of Los Angeles Fire Department
Dave Culver, representative for County of Los Angeles Sheriff's Department
Olivia Valero, representative for City of Long Beach
Joe Leonardi, representative for Los Angeles County Police Chiefs Association
Eric E. Tsao, representative for City of Torrance, At Large #1
Erick Lee, representative for Culver City, At Large #2
Greg Simay, Vice Chair, representative for City of Burbank, At Large #3
Steve Smith, representative for City of Covina, At Large #4

Representatives For Official Voting Members Present:

None

Others Present:

Pat Mallon, LA-RICS
Susy Orellana-Curtiss, LA-RICS
Truc Moore, County Counsel

Official Voting Members Absent:

June Gibson, representative for the City of Los Angeles Fire Department
James Alther, representative for the LAUSD Police Department
Kay Fruhwirth, representative for County of Los Angeles Department of Health Services
David Lantzer, representative for Los Angeles Area Fire Chiefs' Association
Daniel Jordan, representative for California Contract Cities Association

AGENDA ATTACHMENT 1

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Chair Stephen Sotomayor took roll call, quorum was reached.

III. REPORTS –

Executive Director Mallon stated that there was an error in not including the System Description along with today's Finance Agenda packet.

Executive Director Mallon stated that LA-RICS had some discussions with FirstNet which could significantly affect the cost of maintenance and system refresh; at this time there are still no definitive answers from FirstNet.

Executive Director Mallon stated that the Funding Plan, should presented to the Board members at their meeting tomorrow even if the Committees not able to provide comments.

Committee member Erick Lee asked if LA-RICS is looking to the Finance Committee to make recommendations to the Board on the draft Funding Plan, even if there is no consensus from the Committee. Executive Director Mallon said that per the Board Chair and time constraints, yes.

IV. NEW BUSINESS – None

V. OLD BUSINESS –

1. **Action Item: Review and make recommendations to the Joint Powers Authority on the proposed LA-RICS Funding Plan.**

Chair Sotomayor thanked PMC Consultants for their work of being able to edit and change numbers at a moment's request.

Executive Director Mallon introduced Phil Carter and Dereck Wong, of PMC, to go over the Proposed Funding Plan (Agenda Attachment 1). Dereck Wong stated that since last month's Finance Committee meeting there have been a lot of changes and updates to the Funding Plan. The main objective was to develop a process to get local buy-in through workshops, surveys, and Finance Committee meetings. One of the items added into the Funding Plan was the 2nd responder users' information. Out of the 86 JPA Members, only 48 submitted responses, which some of them were full contract cities. Therefore, since there was missing information from some agencies, PMC had to extrapolate based on the available data in order to come up with regional averages. These averages were applied to those jurisdictions that did not submit a survey response. LA-RICS provided outreach to the forty-two agencies that did not submit surveys. PMC provided daily updates to the LA-RICS staff and they sent out emails and made phone calls. Out of the 42, currently there are about 14 agencies that still have not responded.

At this point Mr. Wong referred to the attachment. He stated that there are two primary driving forces:

- Cost allocations– the cost of the both LMR and LTE systems
- Survey information – this would drive the variables and the weighting

Mr. Wong went on to say that there was one change in which Administrative Cost was lowered for both LMR/LTE systems. PMC developed a Baseline Funding Plan and Alternative Scenarios. They developed 10 different scenarios with different costs for LTE and one straight forward scenario for LMR. He referenced Scenario #7 and pages 1 & 2.

Executive Director Mallon was asked if some agencies would be doing a cash contribution or In-Kind match because they are not offering anything. He stated that LA-RICS hopes that by using the In-Kind match (up to 10%) a cash match would be avoided. It is anticipated that the Cash match will be amortized over 15 years. Inaccurate numbers in the Funding Plan will be reviewed by Board Members during the 60-day comment period and a new Funding Plan will include more accurate figures. The first year will contain a cushion, since the first year is maintenance free.

Executive Director Mallon stated that the deadline is August 15, 2015 to complete the PSBN build-out, and assuming that the Board approves the contract to proceed into Phase 1 (Detailed Design) tomorrow, it will be 60 – 90 days before we can improve the Final Funding Plan. Even if the Finance Committee approves the draft Funding Plan today and the Board approves its release tomorrow for the requisite 60 day comment period and 35-day opt-out period, LA-RICS runs the risk of delaying the contractor. There are cost and schedule implications if the approval gets pushed back 30-days.

Executive Director Mallon stated that the Board's Agenda includes consideration of the LTE contract for Motorola Solutions, Inc. Also on the Agenda tomorrow is a policy decision to allow members to opt in or out of one or the other of the two systems (LMR/LTE).

Mr. Wong stated that reason behind there changes in forecast cost to cities was the inclusion of information on Second Responders.

Executive Director Mallon stated action to approve the funding plan is not required to award the LTE system contract. However, the JPA Agreement requires the development of a funding Plan prior to entering Phase 2 (Construction)

Executive Director Mallon stated that under this Funding Plan, that there could be a financing package for the $19 million Cash match and that members would not have to start paying the debt service until completion of the project. The Cash match could be amortized over a 15-year Debt Service Agreement, assuming that members cannot come up the money right away.

Executive Director Mallon stated that the hope today is to present the Funding Plan to Board as a draft with the caveat that LA-RICS will incorporate comments at the end of a given time.

The Finance Committee, PMC, and Executive Director Mallon had a detailed discussion regarding assumptions of staying and opting out; cost; membership, etc. Ms. Susy Orellana-Curtiss brought up a significant point, whether the County takes the lead and builds the system. Are cities where the County is providing contract cities services going to agree to approve site access agreements and permit LA-RICS to build a system so that the regional services can be provided within their area? Through the Outreach meetings the information gathered regarding the Funding Plan and the Site Access Agreement go hand-in-hand, so the membership confirmation and the Site Access Agreement are being held together. How can LA-RICS build a system that serves only the County and County sites? Are the members going to commit their site to receive contract services from County Sheriff and County Fire, and then see if the system works? Those contract city sites cannot be build-out after August 2015.

Executive Director Mallon stated part of the process in developing the Funding Plan was that throughout the stakeholder sessions and outreach, the Funding Plan was built with the input of those very cities that have to make that decision.

A recommendation to approve the Funding Plan with concerns was recommended by Committee Member Erick Tsao, who called the 1st motion and Committee Member Greg Simay called the 2nd motion.

Truc Moore, County Counsel, stated that there are three options after the comments period has expired:

1) Approve Funding Plan
2) Revise Funding Plan and address all or some member comments
3) Reconsider the Funding Plan at a later date.

The committee held further discussion and made the following recommendations, contingent upon a policy decision of the Board to release this as a Draft Funding Plan for the 60-day comments period, and amended the motion to include further refinement as part of the process:

- Membership
- FirstNet's Role
- Cost Allocation
- True-up
- Cash Flow
- Phasing
- Phasing of Cost

Committee Member Erick Tsao called the amended 1st motion and Committee Member Greg Simay called the 2nd motion, there was a unanimous vote. **MOTION APPROVED.**

VI. PUBLIC COMMENT – None

VII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 3:23 p.m. by consensus.

The next regular meeting will be held on Thursday, April 24, 2014.

LA-RICS FUNDING PLAN
SYSTEM DESCRIPTION
February 20, 2014

AGENDA ITEM 1

Genesis of the Hybrid LMR System

In the summer of 2012, Jacobs Program Management, acting as the Authority's LMR Program Manager, performed a hybrid UHF T-band and 700 MHz analysis to ascertain if such a system could be deployed across the greater Los Angeles Region. The results of that study, as articulated in the "LA-RICS LMR Hybrid Feasibility Study" of July 7, 2012, indicated that a hybrid LMR System was feasible, and that such a system would meet both LA-RICS' near term and longer term public safety communications needs.

It was the conclusion of the study that a hybrid system utilizing both 700 MHz P25 and T-Band P25 technologies could provide the LA-RICS user community with a LMR system capable of supporting first responders. The overall conclusion was predicated on the minimum requirement of utilizing seventy (70) 700 MHz channels. The utilization of T-Band spectrum within the hybrid system is fully scalable thus rendering the T-Band component configurable to address concerns regarding the concentration of first responder assets in areas during emergency response.

The study concluded that a hybrid UHF T-band and 700 MHz system could:

- Support 34,000 users on the 700 MHz spectrum with the capacity to accommodate a 25% incident increase of users maintaining a 1% GoS.

- Although T-Band channels will support 34,000 users on the T-Band spectrum with the capacity to accommodate a 25% incident increase of users maintaining a 1% GoS, real-life experience indicates the need for more capacity. The study recognized that there is additional T-Band capacity available to meet the real life requirements for 10 channels per site, as this was anticipated to be a requirement in the LMR RFP and ultimate contract.

- Provide voice coverage per anticipated RFP requirements with the exception of the Angeles National Forest (ANF) areas (this is primarily due to a limited number of available tower facilities in the ANF, and coverage could be enhanced as additional sites become available).

- Include a narrowband data subsystem that could replace three existing UHF mobile data systems with a single system having coverage and capacity that would meet anticipated LMR System requirements.

- Include the current ACVRS that will be maintained on UHF but could be upgraded to more modern equipment.

- Employ bi-directional amplifiers (BDAs) for in-building coverage as used in the existing T-Band subsystems. The existing BDAs will be replaced and/or supplemented with 700 MHz BDAs as needed.

- The selected Contractor's final design should be based on user input that would determine how the hybrid system implementation plan would be rolled out.

Following the July, 2012 Hybrid Feasibility Study, all pertinent requirements for a hybrid system were incorporated in the LMR System RFP. Due to the requirement to provide up to 10 channels per site for surge capacity, for both UHF and T-Band, it was determined that a pool of

700 MHz frequencies could be used to augment capacity at sites where event escalation might occur. As a result, LA-RICS required that Proposers not exceed 90 700 MHz frequencies. Two Proposers provided proposals that addressed a hybrid system, and Motorola Solutions, Inc. was invited to negotiate. Subsequent to successful negotiations with Motorola, a contract was executed that would provide a hybrid LMR System for the greater Los Angeles Region.

Description of the LMR System

The LMR System is a hybrid, integrated, regional, public safety wireless communications system operating primarily on UHF T-Band channels and 700 MHz spectrum. This Association of Public Safety Communications Officials (APCO) Project 25 Phase II capable wireless communications system will provide public safety first responders with mission critical voice and data communications supporting day-to-day, mutual aid, and task force operations. It will provide immediate and coordinated assistance in times of emergency, minimizing loss of life and property within the greater Los Angeles Region.
Furthermore, the LMR System will provide enhanced, interoperable communications through the following Subsystems:

- Digital Trunked Voice Radio Subsystem (DTVRS): This DTVRS subsystem is considered the primary subsystem. It is a hybrid design that incorporates Project 25 Phase II equipment operating a voice communications network on both UHF "T-Band" spectrum and the 700 MHz band. Intra-subsystem network operations between users on the differing bands is transparent.

- Analog Conventional Voice Radio Subsystem (ACVRS): The interoperable ACVRS subsystem will interface with the hybrid UHF and 700 MHz DTVRS subsystem. ACVRS will use narrow-banded UHF channels available to LA-RICS.

  ACVRS will consist of up to Twenty-two (22) Los Angeles County Fire Department (LACoFD) regionalized channels corresponding to each Telephone Radio Operator (TRO) operational service area.

- Narrowband Mobile Data Network (NMDN): The NMDN Subsystem will be available to all member agencies. This subsystem's data network will operate on UHF channels and provides reliable Computer-Aided Dispatch (CAD) connectivity. .

- Los Angeles Regional Tactical Communications Subsystem (LARTCS): The LARTCS Subsystem will support public safety operations on VHF Low-Band, VHF High-Band, UHF and 800 MHz. This Subsystem provides DTVRS and ACVRS interoperating connectivity with legacy public safety systems users that would not normally operate on LA-RICS' primary subsystems.

  Where possible, the LARTCS subsystem radio system attempts to logically share common infrastructure components.

System Capabilities and Advantages

The LMR System will facilitate and support Authority Stakeholders' day-to-day public safety voice and low-speed data communications needs, providing instantaneous mutual aid in the event of a man-made or natural disaster. As such, the LMR System provides communications

surge capability and resiliency. It provides generous allowances for disaster recovery and future system growth.

The Authority will possess a public safety LMR System that will be technically sufficient. In addition to supporting day-to-day public safety voice and data communications needs, the LA-RCIS LMR System also provides a much needed migration path off the UHF T-Band spectrum that must be vacated in 2023 pursuant to H.R. 3630; Middle Class tax Relief and Jobs Creation Bill of 2012.
Why is the Hybrid approach the best option for LA-RICS at this time?

- Removes LA-RICS from dependency on the Federal Government to make decisions regarding local spectrum and funding.
- Deploys an interoperable public safety radio network on Day 1 and buys time for later resolution with respect to future T-Band frequency availability.
- Buys time to position for the possibility of future spectrum availability in both 700MHz and 800MHz.
- Provides a baseline County-wide system now that will easily accommodate expansion as users come onboard.
- Allows for a smooth, coordinated migration over time, and stays positioned for future FCC assistance with spectrum and funding.
- Minimizes risk of breakage and stranded assets.
- Utilizes existing ACVRS and narrowband data.
- Allow us to prudently plan for yet-to-be-determined policies and direction from FCC.

Effects on Members Existing Operations & Benefits

The benefits and advantages that Member agencies' will gain with the LA-RICS hybrid LMR radio communications system, over their existing operations and for the next decade and beyond, are numerous and include:

- A truly County-wide Voice and Data System that provides coverage and capacity throughout the jurisdictions of all Member Agencies.
- Reuse of infrastructure assets leverages the investments that Members have made in existing sites and equipment.
- Cost savings are realized through centralized operations and maintenance of the LMR System.
- Cost avoidance will be achieved when the federal legislation to vacate the current UHF T-band occurs as the Authority will not have to re-procure and re-deploy a new regional communications system.

- Coverage and capacity will meet or exceed operational requirements for all LMR Subsystems and provide significant improvement over existing capabilities.
- Designed-in system growth will provide long-term usability in response to population growth and additional operational requirements.
- LMR System is being designed in a modular, scalable manner to allow the Authority to add or remove Members/users as needed, necessary and appropriate.
- LMR System will allow Member agencies the flexibility to assume responsibility for LMR System maintenance as desired.
- There will be no single-point-of-failure throughout the mission-critical DTVRS Subsystem.
- Geographically-isolated LMR System controllers will provide redundancy in the event of a disaster.
- System-wide encryption provides LMR System security against cyber-attacks.
- LMR System provides encrypted communications allowing for each member Agency to conduct secure operations.
- LMR System will achieve the Authority's vision of regional communications interoperability.
- LMR System will provide Member agencies operational and equipment options regarding end of life concerns for their current systems.
- All hardware, firmware, and software licenses will be current as of the final acceptance.
- Overall LA-RICS program objectives will be realized to the great benefit of all Members:
    - Pooling regional frequencies will be accomplished.
    - Reuse of existing infrastructure will be realized.,
    - Providing for interoperable day-to-day communications for all Members will finally become a reality.,
    - Providing instantaneous mutual aid communications will be realized.,
    - Regional disaster recovery capabilities will be enhanced.,
    - Factored-in future growth will be available.,
    - Positive reduction of duplication costs will be a reality.,
- Enhanced interoperable communications with federal, state and other outside local agencies.

- Does not require members to invest capital dollars up front for UHF-capable subscriber units, but rather preserves individual agency equipment replacement/migration strategies. Members who operate exclusively on VHF, or who have outdated 700 MHz equipment, may choose to replace their subscriber equipment in order to take full advantage of the new hybrid network.

- Reduces the risk for all Members of deploying on a network that will be obsolete in less than a decade.

- Over the long term, 700 MHz will provide better interoperability with contiguous neighbors – Orange, Riverside, and other adjacent County users, since they are migrating to 700/800MHz.

- Potential exists for LA-RICS 700 MHz to be a direct backup for STRS and CWIRS – they currently have no backup capability.

Description of the LTE System

The Public Safety Broadband Network (PSBN) is a state-of-the-art wireless broadband system that provides high mobility public safety grade outdoor data services across Los Angeles County. It uses the latest cellular technology, called Long Term Evolution (LTE), currently being deployed by the major cellular carriers worldwide. The PSBN is built to the higher public safety reliability standards in order to have service available when public safety needs communications most – during emergencies. The PSBN is capable of interoperability with the forthcoming FirstNet nationwide network as well as other Broadband Technology Opportunity Program (BTOP) grant funded public safety systems. It uses the radio spectrum assigned to LA-RICS in its (SMLA) with FirstNet. The PSBN consists of the following major subsystems:

- **LTE Subsystem** – The LTE Subsystem consists of a LTE compliant wireless broadband system. LTE is a global standard established by the Third Generation Partnership Project (3GPP) and represents the most advanced commercial wireless broadband technology available. The LTE Subsystem will enable the Authority to have the same system functionality as commercial wireless carriers. The LTE Subsystem will provide wireless mobile broadband service across Los Angeles County from 231 "cell sites" (known as eNodeBs). It will provide broadband coverage to outdoor users using portable devices. The LTE Subsystem will meet various Key Performance Indicator (KPI) thresholds to achieve reliable and high speed data connections. The LTE Subsystem also includes one Evolved Packet Core (EPC) implementation at the Los Angeles County Fire Department's Fire Command and Control Facility ("FCCF") to manage user mobility and routing throughout the entire system. A second redundant Evolved Packet Core is included as an additive alternate. The following table represents the percentage for each zone for the downlink (cell site to mobile device) and uplink (mobile device to cell site).

LA-RICS Coverage Zones	Percent Coverage of Geography	
	Downlink (768 kbps)	Uplink (256 kbps)
LA Basin	96.5	91.7
Santa Monica Mts.	62.6	36.2
Angeles Nat. Forest	35.0	11.6
Foothills	70.4	43.2
Foothills - Developed	91.2	76.8
CA-14 Corridor	42.2	16.9
Northern Desert	90.9	73.7
Waterway	70.8	66.0

- **Backhaul Subsystem** – The Backhaul Subsystem provides connectivity and data routing among the 231 cell sites and the Evolved Packet Core. Microwave communication is the method of choice in the Backhaul Subsystem and provides

connections for more than 80 percent of the PSBN Sites. The remaining sites as well as other intersystem connections are achieved through leased circuits.

- **Ancillary Site Subsystem** – The Ancillary Site Subsystem consists of "public safety grade" elements required to support the LTE and Backhaul Subsystems. This includes new robust monopole "towers" as well as battery backup and generator systems to provide short-term and long-term power backup in the event of commercial power failures. The Ancillary Site Subsystem also includes the necessary upgrades and improvements for existing rooftop and tower sites to support the LTE and Backhaul equipment.

System Capabilities & Advantages

The PSBN is capable of high speed and high mobility communication where service is provided. Data rates and performance on the system will be comparable to commercial cellular services. However, this network differs from commercial services in one key area – availability of service. Commercial cellular networks are not built to the same robust standard as the PSBN and are not expected to be as survivable. Furthermore, commercial usage by consumers is typically very high during emergencies. This creates congestion on the cell sites where the incident occurs. And, due to lack of priority service on the commercial networks, public safety communication is at risk due to the congestion.

The PSBN provides outdoor service to portable handheld devices over the area in the table above at data speeds at or above 768 kilobits per second (kbps) in the downlink and 256 kbps in the uplink. However, these rates represent the "edge" rates where the signal is low. LTE is capable of scaling to lower rates at lower signal levels, and therefore, the PSBN can cover more area at lower rates. This can include limited coverage inside buildings, especially inside buildings near PSBN cell sites. Typical capacity for a single cell site is expected to be on the order of 30 megabits per second (mbps). This capacity is shared by the users in that area.

The PSBN is designed to be "public safety grade." The towers are more robust than typical cell phone towers, the sites are equipped with multiple forms of power backup, and wherever possible, components and connections are redundant such that when one element fails, another is immediately available to maintain system operation.

The PSBN is capable of transporting any Internet Protocol (IP) application data. This includes Computer Aided Dispatch (CAD), voice over IP (VoIP), electronic Patient Care Records (ePCR), web applications, email, streaming video, Geographic Information Systems (GIS), and many others[1]. It is designed to accommodate very low system delays (latency) to provide high quality services to delay sensitive applications. However, the system's designed capacity is limited, and therefore, the degree to which these applications can be run simultaneously on the same cell site is limited. And, the system may not provide the needed coverage (e.g., in-building) required by some of these applications.

The system is also capable of roaming to commercial cellular networks where PSBN service does not exist. Therefore, outside of Los Angeles County, in areas outside of the PSBN coverage footprint, and inside buildings, the system is capable of supporting a transition (with a short delay during the transition) to the commercial network. Additionally, subscriber device

[1] These applications were not purchased as part of the PSBN. They would be provided by the member agency and their data would be transported over the PSBN.

options (including one from Motorola in the base agreement) that will support the use of multiple modems that can seamlessly transition between the commercial and PSBN networks.

Effects on Members Existing Operations & Benefits

Due to the higher availability of the PSBN from both the robustness of the network to the dedicated capacity, public safety users will be able to rely more on the PSBN in emergencies. This will enable public safety personnel to have sustained communications in life threatening scenarios that may normally be constrained by congestion or complete loss of service. For example, in the event of an earthquake, existing systems may be crippled by the event itself or by the extremely high usage levels. The PSBN is expected to be more survivable in such an event and the dedicated capacity means public safety does not have to compete with the public for data resources. Finally, because the PSBN is fully controlled by public safety, the Authority and its members can adjust network priorities to address congestion within the public safety community to ensure the most critical communication gets through.

In some cases, member agencies may withhold deployment of data solutions because of the reliability or capabilities of existing systems. The higher reliability of the PSBN may enable increased use of broadband data applications in "mission critical" scenarios. Therefore, in addition to higher reliability of existing data solutions, new life saving benefits may now be possible over the PSBN as a result of the higher data availability. For example, due to congestion on commercial networks, real-time streaming video use may be limited. The PSBN has all of the advanced capabilities of an LTE network and can prioritize video traffic to ensure the needed resources are made available.

And because the PSBN is under the control of public safety, public safety determines the priority of response to system failures, when they occur. This includes public safety control of emergency deployable systems, such as a "Cell on Wheels (COW)." It also includes public safety determination of system maintenance timing to ensure that potential outages that result from maintenance minimize their impacts on public safety, not consumer, operations. It also means that restoration of service can be prioritized due to public safety, not commercial, needs.

The PSBN includes a robust backhaul network connecting the PSBN cell sites with the core network "switch." These sites are predominately located at police and fire stations. The connections could then be used to provide robust data connections to these facilities. And, to the extent that these facilities are on member agency networks, may enable connectivity among Public Safety Access Points or other data communication within the region. While the PSBN connection is currently planned to end at the tower outside these police and fire stations, a connection to the inside of the co-located facility can complete the circuit. This could enable direct phone calling between member agencies in the event that the public telephone network fails, among other applications. It should be noted that the capacity of these connections are based only on the PSBN traffic, and therefore, they may require upgrades to support new applications. However, the system is planned for 50 percent growth which could be used for limited external applications.

In order to benefit from the PSBN's capabilities, member agencies will need new Band Class 14 devices. While member agencies may have LTE capable devices from commercial carriers, those devices do not currently support the dedicated public safety spectrum. Those new devices will need to be configured and installed. Additionally, member agencies will need to connect their fixed networks, data centers, and applications to the PSBN. This will require coordination

and collaboration between IT departments to including physical connectivity, data routing, and security.

AGENDA ITEM 1

MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

REGULAR FINANCE COMMITTEE MEETING

Thursday, February 27, 2014 ● 1:00 p.m.
LA County Fire Department Headquarters, Training Room 25
1320 N. Eastern Ave., Los Angeles, CA 90063

Official Voting Members Present:

Stephen Sotomayor, Chair, representative for City of Los Angeles Police Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst
Jan Takata, County of Los Angeles Chief Executive Office
Olivia Valero, representative for City of Long Beach
Joe Leonardi, representative for Los Angeles County Police Chiefs Association
Daniel Jordan, representative for California Contract Cities Association
Erick Lee, representative for Culver City, At Large #2
Greg Simay, Vice Chair, representative for City of Burbank, At Large #3
Steve Smith, representative for City of Covina, At Large #4

Representatives For Official Voting Members Present:

Nancy Ramirez, representing James Alther for the LAUSD Police Department

Others Present:

Pat Mallon, LA-RICS
Susy Orellana-Curtiss, LA-RICS
Truc Moore, County Counsel

Official Voting Members Absent:

Ed Roes, City of Los Angeles Administrative Office
June Gibson, representative for the City of Los Angeles Fire Department
Doug Cline, representative for County of Los Angeles Fire Department
Cynthia Evans, representative for County of Los Angeles Sheriff's Department
Kay Fruhwirth, representative for County of Los Angeles Department of Health Services
James Alther, representative for the LAUSD Police Department
David Lantzer, representative for Los Angeles Area Fire Chief's Associations
Eric E. Tsao, representative for City of Torrance, At Large #1

AGENDA ATTACHMENT 1

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Chair Stephen Sotomayor took roll call, quorum was reached.

III. REPORTS –

Executive Director Patrick Mallon stated that after the last Finance Committee Meeting, the Funding Plan (with the Finance Committee's recommendations) and the LTE System contract were presented to the Board. After much discussion regarding membership, they asked that the matter be placed on the March 6, 2014 Board Agenda. He stated that the Funding Plan was updated to include some of the Finance Committee recommendations, particularly pertaining to data usage.

Chair Sotomayor stated that there were still some items that need to be addressed, mainly revolving around the true-up period in which the Finance Committee would look at the number of cities participating and the use of the system. Other points discussed included the Cash Flow as well as Phasing of the system. This will give cities a better idea of what they are paying for and when they would be entering into the system. He added that the membership will greatly affect the Funding Plan and that there was no action taken by the Board in the last meeting.

Phil Carter, PMC Consultant, stated since the Committee had a lengthy discussion on the Cost Allocation Paper, PMC went through the JPA agreement and started with the working paper and added a few more sections. Two items that are being worked on have to do with Phasing of Construction and Cash Flow. They were working with the vendor to determine the best way to show that information.

Executive Director Mallon stated that there have been discussions with FirstNet on several matters such as Phasing of Construction and maintenance. He suggested that for the first two or three years until they can develop a better understanding of what FirstNet will cover relative to maintenance cost, it is recommended that the Funding Plan not consider a capital replacement fund.

The other issue was the site lease and In-Kind match. If site lease payments are required for a site, the underlying property value cannot be considered as a contribution to the soft match. Ms. Susy Orellana-Curtiss commented that In-Kind match will be more than $9 million for the member contributed sites and the loss of In-Kind match must be covered by a Cash Match contribution to make up the difference.

Executive Director Mallon was asked how the expansion of the system in the future will be funded. He stated that it will be very difficult to predict. Therefore, it is impossible to calculate such costs. Another consideration is the coverage achieved with the system as designed. He suggested the option of including 3rd tier responders, such as Southern California Edison and Department of Water and Power, if they are interested in the system expansion. It is probably cheaper to use their existing poles for the sites build-out.

Truc Moore, County Counsel, was asked about clarifying language in the Funding Plan. She stated that language clarification can be added, but the JPA agreement already provides for the Funding Plan to have changes done as amendments. If those amendments increase the financial obligation of the members, they are allowed the opportunity to review any adjustments that affect their contributions and are able to withdraw after that. Executive Director Mallon was asked about the expansion of the LTE system and stated that it would be a separate project with a separate Funding Plan. This will ultimately be a Board policy decision.

Executive Director Mallon stated that the design process for the LMR systems has some latitudes on how things go. For the LTE system, because of the time frame to build, will not have any latitude until after August 15, 2015.

Jim Hardimon, Motorola Solutions, stated that there are several layers in the LMR system: Digital trunked, analog conventional and mutual aid layers within the program. The initial program, the way it is being deployed in the contract today is in developing the system and layering it out when coverage testing throughout the County begins. Cut over for agencies will be looked at on a specific agency basis. So, many months out prior to testing for each agency, Motorola Solutions will meet with every agency and go through an audit of their system and evaluate what pieces of equipment can be interfaced or may need to be adjusted to come on the system. The timing of deployment is affected by the seven zones of coverage. Once they completed coverage testing in one zone they will proceed to coverage testing to other parts of the County. The system will be available for cut over by the end of 2016. A year prior to that they will initiate a program to assess what radios each agency has and how it will interface with the system.

Committee Member Erick Lee had a concern that if the Board does not approve the release of the Funding Plan document of last Thursday, LA-RICS may run into cost implication or major delays in the project. Executive Director Mallon stated that LA-RICS met with Motorola to see where they can compress the schedule. They had cut as much time out of the project schedule as they can. Even with that if the board approves both the LTE contract and the release of the Funding Plan on March 6, 2014, it will not be until June before a notice can be given to proceed on Phase 2. What has been proposed is to begin cutting out some of the testing period in order to get it done.

Mr. Sotomayor commented that he is not sure if he is ready to make recommendation on those key policy points right now. Whether or not the JPA decides to release the plans, the Committee is responsible for making recommendations on some of these key points. Additional information and time are needed in order to work through this between now and the next JPA meeting. He suggests utilizing a Sub-Committee to make the cost allocation factors into a full Funding Plan with policy recommendations.

Committee Member Lee stated that one of the key things that we are missing is the Cash Flow Plans and estimates, and wondered if that information was still outstanding.

Executive Director Mallon responded the Cash Flow for the LTE system has match requirements that needs to be paid along the way. He added they need to work with CEO's Office with potential interim financing through some commercial paper. This will delay member contributions until after the system is built.

Phill Carter was asked about annual costs and stated that they have not completed such calculations. They are looking at a capital replenishment fund and a short duration in terms of a catch up period. They assumed the same kind of interest as for the carrying cost for the bonds.

Executive Director Mallon said that presenting different scenarios for the LTE cost will create a significant amount of confusion. He recommended looking at scenario 3, which excludes In-Kind match and Capital replacement costs. Everything else is based on Additive Alternates for which no determination has yet been made.

Committee Member Joe Leonardi called the 1st motion and Committee Member Jan Takata called the 2nd motion. **MOTION APPROVED** to advocate Scenario #3 on the LTE system, but not on the LMR.

After further discussions, the previous motion was withdrawn in order to wait for the Special Joint Operations and Technical Committee's recommendation at their Tuesday meeting, and come back the following Wednesday, March 6, 3014, to make a decision on this matter.

Committee Member Joe Leonardi called the 1st motion and Committee Member Greg Simay called the 2nd motion. **MOTION APPROVED**.

Committee Member Lee asked for there to be more clarity in the existing Cash Flow documentation regarding payments and payment deadlines. Chair Sotomayor stated that the information would be provided.

Chair Sotomayor stated that Site Lease Payments would be a discussion item at the next Finance meeting.

Committee Member Lee also inquired as to when the Finance Committee meeting minutes will be available for approval, since they have not seen one since September 2013. Executive Director Mallon stated that due to staff shortages and multiple meetings minutes there is a backlog that will hopefully be addressed with the hiring of new staff.

IV. NEW BUSINESS – None

V. OLD BUSINESS –

VI. PUBLIC COMMENT – None

VII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned.

The next meeting is on Wednesday, March 5, 2014.

MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

SPECIAL FINANCE COMMITTEE MEETING

Wednesday, March 5, 2014 ● 1:00 p.m.
LA County Fire Department Headquarters, Training Room 25
1320 N. Eastern Ave., Los Angeles, CA 90063

Official Voting Members Present:

Ed Roes, City of Los Angeles Administrative Office
Stephen Sotomayor, Chair, representative for City of Los Angeles Police Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst
Jan Takata, County of Los Angeles Chief Executive Office
James Alther, representative for the LAUSD Police Department
Olivia Valero, representative for City of Long Beach
David Lantzer, representative for Los Angeles Area Fire Chiefs' Association
Joe Leonardi, representative for Los Angeles County Police Chiefs Association
Daniel Jordan, representative for California Contract Cities Association
Eric E. Tsao, representative for City of Torrance, At Large #1
Erick Lee, representative for Culver City, At Large #2
Greg Simay, Vice Chair, representative for City of Burbank, At Large #3
Steve Smith, representative for City of Covina, At Large #4

Representatives For Official Voting Members Present:

None

Others Present:

Pat Mallon, LA-RICS
Susy Orellana-Curtiss, LA-RICS
Truc Moore, County Counsel

Official Voting Members Absent:

June Gibson, representative for the City of Los Angeles Fire Department
Doug Cline, representative for County of Los Angeles Fire Department
Cynthia Evans, representative for County of Los Angeles Sheriff's Department
Kay Fruhwirth, representative for County of Los Angeles Department of Health Services

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Chair Stephen Sotomayor took roll call, quorum was reached.

III. REPORTS – None

IV. NEW BUSINESS – None

V. OLD BUSINESS –

1. Action Item: Review and make recommendations on the proposed LA-RICS Funding Plan.

Chair Sotomayor introduced Phil Carter, of PMC, to discuss the "Cash Flow" handout (one of the components of the Funding Plan) that was requested by the Finance Committee at the meeting on February 27, 2014. There are a couple of differences between the Cash Flow (O&M numbers fluctuated) and the Funding Model (smoothed numbers over a 15-year period).

Susy Orellana-Curtiss stated that the Operations and Technical Committees met yesterday, March 4, 2014, and was presented with the various scenarios for inclusion to the Funding Plan. These scenarios were also presented to the Finance Committee and the Board of Directors at their meeting on February 20, 2014. The Joint Committees heard a presentation by the Broadband Engineer Consultant, Joe Ross of Televate. The LA-RICS staff went over the benefits, the risks, and the cons for each of the various scenarios. Both Committees unanimously supported recommending Scenario #.

Technical Committee Chair Chief Kevin Nida walked through the various scenarios listed below:

1) Home Subscriber Server (HSS) Additive Alternate Maintenance (needed)
2) Second Additive Alternate Redundant Evolved Packet Core (needed)
3) Adding Location Services Additive Alternate Maintenance (needed at a later date)
4) Capital Replacement (deferred – Technical Committee to review)
5) Joint Committees are okay with the contract being awarded to Motorola. Both Committees recommended that the JPA accept the presentation and services, which they believe will be a benefit to the Authority.

Ms. Orellana-Curtiss reiterated the Joint Operations and Technical Committees recommendation is excluding the In-Kind Match and Capital Replacement; adding the HSS Additive Alternative Maintenance; and adding the Second Additive Alternate Redundant Evolved Packet Core, which are the combination of Scenarios 3, 8, and 9, which is now the new Scenario 12 (page 28 of the cash flow handout).

Committee Member Greg Simay commented that he and the City of Burbank Technical Committee Member agree with all recommendations. The nexus with the Funding Committee is that if there is computer based equipment, an agency can only get 7 years and possibly 10.

The big uncertainty that came out at the Joint Committee meeting was that it was unclear how much ownership responsibility and funding FirstNet will take and when they can take it. It seems as though FirstNet is at least responsible for the Cores and maybe the radio access network (RAN). Therefore, by the end of the 7 years, FirstNet might take over the replacement of any computer based equipment that is failing/technically, obsolete or it may go back to the members.

Chair Sotomayor stated that what he took away from the Joint Committee Meeting is that there is a single point of failure in the LTE Network with only one core. Removing some of the costs mentioned in the Joint Committee Meeting helps, but within that first year period those costs can be revisited and see what they might be after the one-year warranty period expires. In the meantime, LA-RICS should advocate to FirstNet to cover some of those costs or at least get an answer in order to revisit and let member agencies know what their share of those costs would be.

Committee Member Simay stated that according to the JPA structure, once you accept the funding plan, if you do withdraw thereafter, there is an assumed obligation incurred in the meantime. There should be an estimate of what the risk would be and also the share of the finance replacement. Chair Sotomayor stated that if the Funding Plan is approved, and if during that time FirstNet does not cover those costs, there is also a true-up period. At this point, Mr. Carter asked everyone to look at their handouts and see the Baseline Scenario with the Capital Replacement Cost which provides reasonable estimates of what the risk could be if FirstNet would not provide assistance.

Committee Member Joe Lombardi brought up the issue of Infrastructure credits being disallowed because of the BTOP Grant. Ms. Orellana-Curtiss stated that it was on the Board's Agenda for tomorrow. She went on to say that it does not allow for In-Kind to claim credit for something that is being paid for. If the Board opts to provide credit, payment, or for example, a site use, the Board would have to identify an increase in cash match.

Chair Sotomayor stated that keeping in mind that there is a deadline of 60-days that must be met and that this is still just a draft Funding Plan that allows members to input more data into this process.

Committee Member Matias Farfan suggested having a policy regarding how replacement funds are reinvested for the LMR. Chair Sotomayor said that it would be supplied. Committee Member Jan Takata said that LA County is ruled by the Government Code and could send the members copies of the codes. Committee Members also suggested a simpler form for each member agency, since most of them need to present it to others within each of their jurisdictions.

Scenario 12 was recommended by Committee Member Farfan and a motion was called and 2nd by Committee Member Steve Smith with a unanimous vote. **MOTION APPROVED.**

Regarding the release of the Funding Plan for both LMR and LTE, a motion was called by Committee Member Farfan and 2nd by Committee Member Steve Smith with a unanimous vote. **MOTION APPROVED.**

VI. PUBLIC COMMENT – None

VII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 2:00 p.m. by consensus.

The next regular meeting will be held on Thursday, April 24, 2014.

LA-RICS

CASH FLOW

MARCH 2014

PREPARED BY: PMC®

Cash Flow

The LA-RICS funding plan provides a projection of cash flow of project expenses based on construction milestones and system operability, and the impact on members' fees. The cash flow required for the LMR system backbone is developed for the time period of FY 2017/18 through FY 2031/32, a 15 year period. The cash flow is presented assuming participation by all JPA members from system implementation. Potential major funding sources for the LMR backbone include Los Angeles County, City of Los Angeles, Long Beach, and all other Independent Cities.

The cash flow required for the LTE system backbone is developed separately for the time period of FY 2015/16 through FY 2031/32, a 17 year period to match the end years with LMR. The cash flow is presented assuming participation by all JPA members from system implementation. Potential major funding sources for the LTE backbone include Los Angeles County, City of Los Angeles, Long Beach, and all other Independent Cities.

Cash flow is conducted for four system implementation scenarios including:

Scenario 1, Baseline

Scenario 2, Excluding LTE In-Kind Match

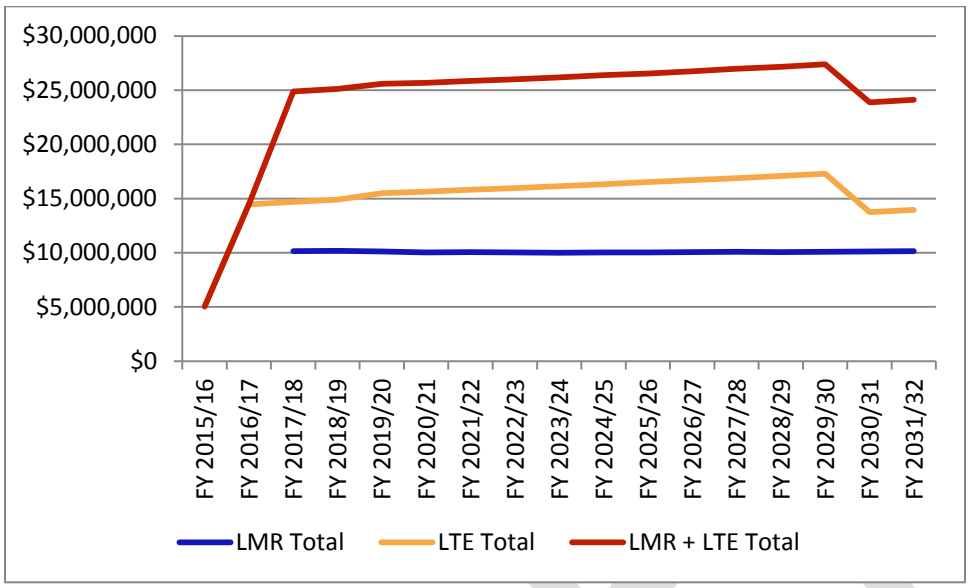
Scenario 3, Excluding LTE In-Kind Match and Capital Replacement

Scenario 8, Excluding LTE In-Kind Match and adding HSS Additive Alternate Maintenance

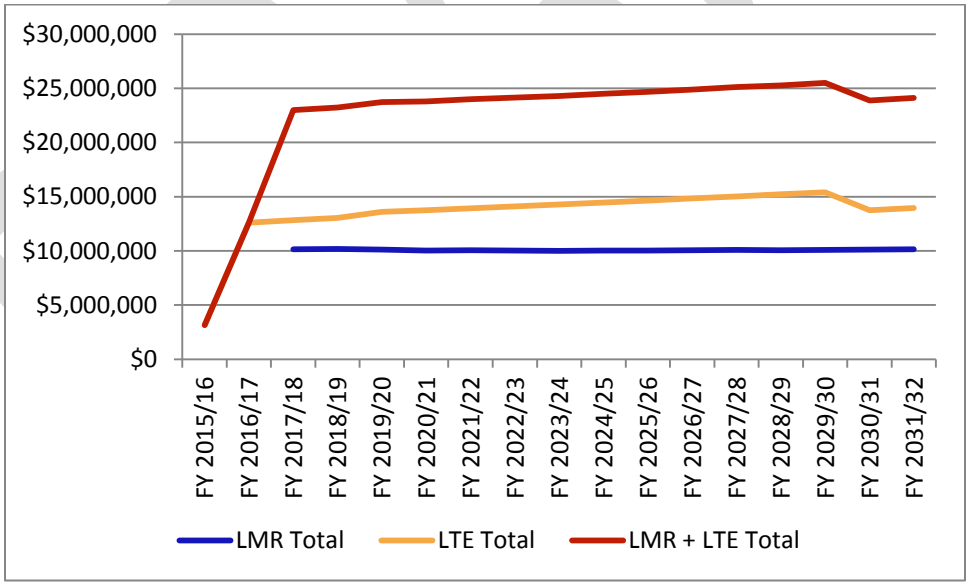
For each scenario, the LMR and LTE system costs are shown on an annual basis. Following these costs, the member fees on an annual basis are then provided. The total system costs are consistent with the funding plan model costs used for the cost allocation method. There is a slight deviation in the fee amounts for each member agency when comparing the cash flow against the annual cost figures shown separately in the funding plan model for a few reasons, one being that the cash flow shows the annual O&M cost estimates from the respective LMR and LTE PSBN contracts that vary up and down while the funding plan model reflects an average annual O&M of the total that is straightline, and another being the funding plan model uses rounded data. The annual O&M in the cash flow shows the variation over time depicting the phasing of the systems as described in the contracts.

Graphics below show the general trends in project expenditures for LMR and LTE for each scenario. As the assumption in the cash flow is that revenue equals cost, a single line each for LMR, LTE, and combined systems represents the trends. LTE costs begin in FY 2015/16 (1st year of period) while LMR costs do not begin until FY 2017/18 (3rd year of period). The trend either up or down for most of the period is due primarily to the O&M contract cost estimates. Towards the end of the cash flow period, the hard match payments for LTE conclude which reduces the LTE cost.

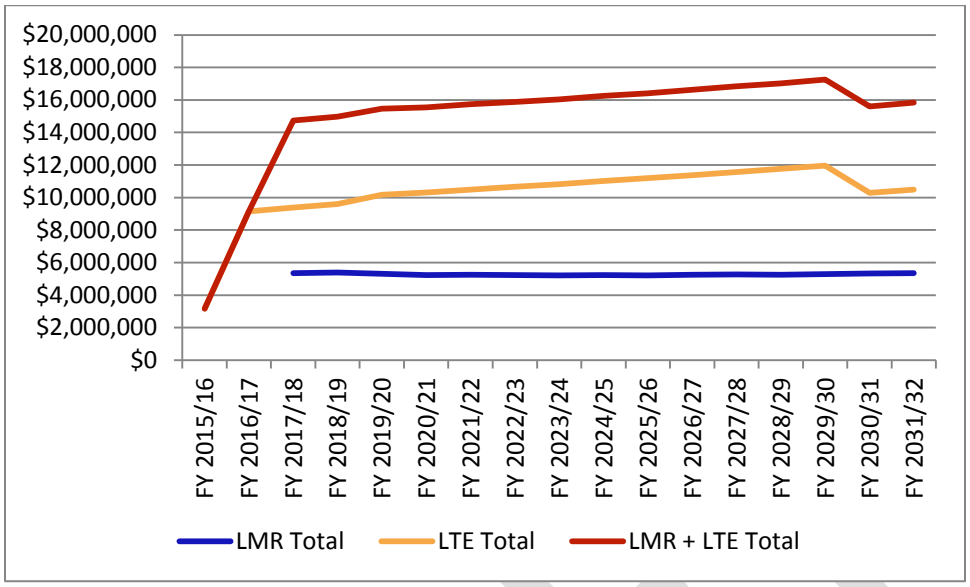
Scenario 1, Baseline



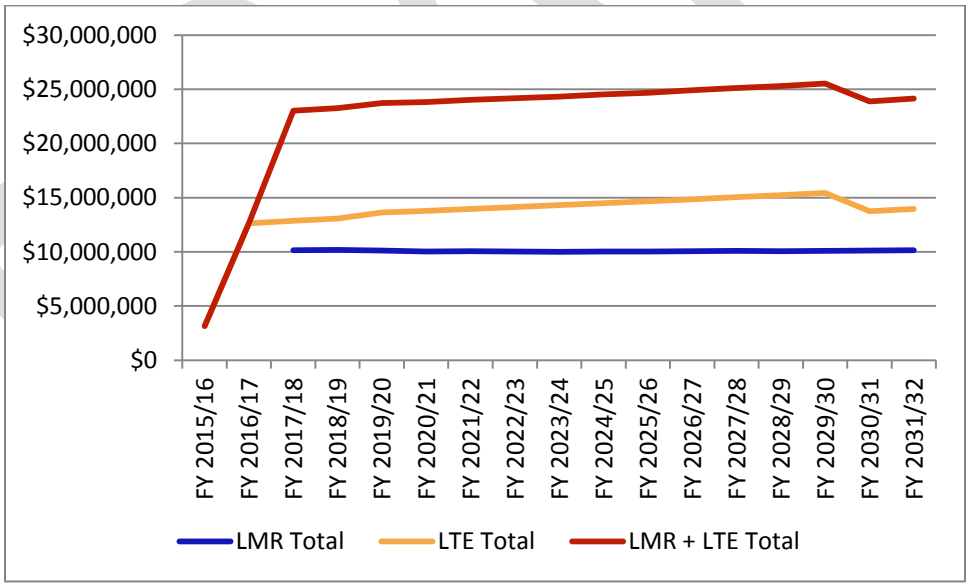
Scenario 2, Excluding LTE In-Kind Match



Scenario 3, Excluding LTE In-Kind Match and Capital Replacement



Scenario 8, Excluding LTE In-Kind Match and adding HSS Additive Alternate Maintenance



LA-RICS
Cash Flow Estimates
March 2014

Annual Costs - Scenario 1, Baseline

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
LMR									
Operations and Maintenance (from Phase 5 LMR Contract)			$4,011,090	$4,011,090	$3,904,394	$3,797,698	$3,797,698	$3,744,351	$3,691,003
Capital Replacement			$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841
Administration			$1,343,528	$1,370,398	$1,397,806	$1,425,762	$1,454,278	$1,483,363	$1,513,031
LMR Total			$10,161,459	$10,188,329	$10,109,041	$10,030,302	$10,058,817	$10,034,555	$10,010,875
LTE									
Hard Match (from BTOP grant budget narrative)	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012
In-Kind (from BTOP grant budget narrative)	$1,871,924	$1,871,924	$1,871,924	$1,871,924	$1,871,924	$1,871,924	$1,871,924	$1,871,924	$1,871,924
Operations and Maintenance (first 5 years from Phase 5 PSBN contract)		$5,955,692	$6,164,811	$6,346,320	$6,891,526	$7,011,440	$7,151,669	$7,294,702	$7,440,596
Capital Replacement		$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733
Administration	$1,291,357	$1,317,184	$1,343,528	$1,370,398	$1,397,806	$1,425,762	$1,454,278	$1,483,363	$1,513,031
LTE Total	$5,038,294	$14,472,546	$14,708,008	$14,916,388	$15,489,002	$15,636,872	$15,805,616	$15,977,735	$16,153,296
Total LMR+LTE	**$5,038,294**	**$14,472,546**	**$24,869,467**	**$25,104,717**	**$25,598,043**	**$25,667,174**	**$25,864,433**	**$26,012,290**	**$26,164,171**

Interest Rates	
Loan rate for hard match and in-kind	5.00%
Investment rate for capital replacement sinking fund	0.625%
LTE O&M inflation (after 5th year)	2%
Administration	2%

Note: LMR and LTE O&M based on respective contracts. In funding model, annual O&M is averaged using straight line method.

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Annual Costs - Scenario 1, Baseline

	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	Total
LMR									
Operations and Maintenance (from Phase 5 LMR Contract)	$3,691,003	$3,637,655	$3,637,655	$3,637,655	$3,584,307	$3,584,307	$3,584,307	$3,584,307	$55,898,520
Capital Replacement	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$72,102,617
Administration	$1,543,291	$1,574,157	$1,605,640	$1,637,753	$1,670,508	$1,703,918	$1,737,996	$1,772,756	$23,234,187
LMR Total	$10,041,135	$10,018,653	$10,050,136	$10,082,249	$10,061,656	$10,095,066	$10,129,145	$10,163,905	
LTE									
Hard Match (from BTOP grant budget narrative)	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$0	$0	$28,125,185
In-Kind (from BTOP grant budget narrative)	$1,871,924	$1,871,924	$1,871,924	$1,871,924	$1,871,924	$1,871,924	$0	$0	$28,078,863
Operations and Maintenance (first 5 years from Phase 5 PSBN contract)	$7,589,408	$7,741,196	$7,896,020	$8,053,941	$8,215,019	$8,379,320	$8,546,906	$8,717,844	$119,396,411
Capital Replacement	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$55,243,728
Administration	$1,543,291	$1,574,157	$1,605,640	$1,637,753	$1,670,508	$1,703,918	$1,737,996	$1,772,756	$25,842,728
LTE Total	$16,332,369	$16,515,023	$16,701,330	$16,891,363	$17,085,197	$17,282,908	$13,737,636	$13,943,334	
Total LMR+LTE	**$26,373,504**	**$26,533,676**	**$26,751,466**	**$26,973,612**	**$27,146,853**	**$27,377,974**	**$23,866,780**	**$24,107,238**	

Interest Rates	
Loan rate for hard match and in-kind	5.00%
Investment rate for capital replacement sinking fund	0.625%
LTE O&M inflation (after 5th year)	2%
Administration	2%

Note: LMR and LTE O&M based on respective contracts. In funding model, annual O&M is averaged using straight line method.

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Annual Member Fees - Scenario 1, Baseline

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
City of Agoura Hills	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Alhambra	$34,539	$99,212	$169,194	$170,803	$174,195	$174,679	$176,027	$177,044	$178,088
City of Arcadia	$27,104	$77,858	$134,894	$136,162	$138,808	$139,171	$140,235	$141,028	$141,843
City of Artesia	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Avalon	$807	$2,318	$4,176	$4,214	$4,292	$4,302	$4,334	$4,357	$4,381
City of Azusa	$13,352	$38,353	$62,362	$62,976	$64,311	$64,522	$65,035	$65,435	$65,846
City of Baldwin Park	$21,718	$62,386	$101,440	$102,438	$104,610	$104,953	$105,787	$106,438	$107,106
City of Bell	$10,161	$29,187	$47,458	$47,926	$48,942	$49,102	$49,492	$49,797	$50,109
City of Bell Gardens	$8,389	$24,098	$39,369	$39,755	$40,593	$40,724	$41,046	$41,297	$41,555
City of Bellflower	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Beverly Hills	$84,609	$243,039	$324,684	$328,388	$337,398	$339,279	$342,331	$345,036	$347,803
City of Bradbury	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Burbank	$74,410	$213,743	$392,416	$395,957	$403,047	$403,873	$406,857	$408,980	$411,165
City of Calabasas	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Carson	$1,856	$5,331	$9,123	$9,209	$9,391	$9,417	$9,490	$9,544	$9,600
City of Cerritos	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Claremont	$20,290	$58,283	$86,429	$87,340	$89,434	$89,818	$90,574	$91,202	$91,846
City of Commerce	$16,139	$46,361	$62,007	$62,714	$64,432	$64,790	$65,373	$65,889	$66,416
City of Compton	$10,361	$29,761	$53,894	$54,385	$55,378	$55,499	$55,913	$56,210	$56,516
City of Covina	$5,506	$15,817	$56,544	$56,879	$57,189	$57,037	$57,335	$57,426	$57,524
City of Culver City	$22,550	$64,774	$164,629	$165,822	$167,614	$167,511	$168,543	$169,077	$169,633
City of Downey	$52,476	$150,737	$232,570	$234,950	$240,295	$241,220	$243,200	$244,803	$246,447
City of Duarte	$6,051	$17,381	$22,955	$23,219	$23,866	$24,002	$24,220	$24,414	$24,612
City of El Monte	$13,906	$39,946	$89,132	$89,835	$91,037	$91,069	$91,671	$92,030	$92,402
City of El Segundo	$8,014	$23,022	$39,887	$40,262	$41,044	$41,151	$41,466	$41,700	$41,941
City of Gardena	$37,175	$106,786	$182,843	$184,577	$188,222	$188,737	$190,191	$191,283	$192,405
City of Glendale	$173,722	$499,017	$745,630	$753,445	$771,328	$774,579	$781,066	$786,432	$791,929
City of Glendora	$14,424	$41,433	$67,369	$68,032	$69,475	$69,702	$70,256	$70,689	$71,132
City of Hawaiian Gardens	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Hawthorne	$24,358	$69,969	$113,769	$114,890	$117,325	$117,709	$118,645	$119,375	$120,125
City of Hermosa Beach	$8,781	$25,223	$49,486	$49,912	$50,724	$50,797	$51,158	$51,401	$51,651
City of Hidden Hills	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Huntington Park	$19,122	$54,929	$90,250	$91,132	$93,036	$93,331	$94,068	$94,639	$95,225
City of Industry	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Inglewood	$5,434	$15,610	$81,214	$81,612	$81,720	$81,373	$81,738	$81,768	$81,805
City of Irwindale	$406	$1,165	$1,894	$1,913	$1,953	$1,960	$1,975	$1,988	$2,000
City of La Canada Flintridge	$329	$945	$1,077	$1,091	$1,127	$1,136	$1,148	$1,159	$1,170
City of La Habra Heights	$571	$1,641	$2,731	$2,757	$2,814	$2,822	$2,844	$2,861	$2,879
City of La Mirada	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of La Puente	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of La Verne	$3,091	$8,879	$33,167	$33,359	$33,522	$33,425	$33,597	$33,645	$33,696
City of Lakewood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Lancaster	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Lawndale	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Long Beach	$192,208	$552,118	$1,232,224	$1,241,948	$1,258,556	$1,258,997	$1,267,317	$1,272,281	$1,277,415
City of Los Angeles	$2,313,252	$6,644,840	$9,877,913	$9,981,851	$10,220,374	$10,264,051	$10,350,297	$10,421,861	$10,495,185

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Annual Member Fees - Scenario 1, Baseline

	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
City of Agoura Hills	$0	$0	$0	$0	$0	$0	$0	$0
City of Alhambra	$179,519	$180,620	$182,109	$183,628	$184,818	$186,398	$162,324	$163,968
City of Arcadia	$142,972	$143,831	$145,006	$146,205	$147,135	$148,382	$129,496	$130,794
City of Artesia	$0	$0	$0	$0	$0	$0	$0	$0
City of Avalon	$4,415	$4,440	$4,476	$4,512	$4,539	$4,577	$4,015	$4,054
City of Azusa	$66,390	$66,822	$67,388	$67,966	$68,432	$69,033	$59,716	$60,341
City of Baldwin Park	$107,991	$108,694	$109,615	$110,555	$111,313	$112,291	$97,136	$98,153
City of Bell	$50,524	$50,853	$51,283	$51,723	$52,078	$52,535	$45,445	$45,921
City of Bell Gardens	$41,897	$42,169	$42,525	$42,888	$43,181	$43,559	$37,706	$38,099
City of Bellflower	$0	$0	$0	$0	$0	$0	$0	$0
City of Beverly Hills	$351,042	$353,937	$357,307	$360,743	$363,841	$367,417	$308,141	$311,861
City of Bradbury	$0	$0	$0	$0	$0	$0	$0	$0
City of Burbank	$414,331	$416,641	$419,936	$423,296	$425,804	$429,300	$377,528	$381,165
City of Calabasas	$0	$0	$0	$0	$0	$0	$0	$0
City of Carson	$9,677	$9,736	$9,816	$9,898	$9,962	$10,047	$8,754	$8,842
City of Cerritos	$0	$0	$0	$0	$0	$0	$0	$0
City of Claremont	$92,648	$93,324	$94,158	$95,009	$95,735	$96,620	$82,434	$83,356
City of Commerce	$67,034	$67,586	$68,229	$68,885	$69,476	$70,158	$58,851	$59,561
City of Compton	$56,955	$57,278	$57,734	$58,200	$58,551	$59,035	$51,824	$52,328
City of Covina	$57,840	$57,950	$58,279	$58,615	$58,745	$59,094	$55,355	$55,718
City of Culver City	$170,729	$171,328	$172,468	$173,630	$174,298	$175,507	$159,971	$161,230
City of Downey	$248,548	$250,275	$252,462	$254,692	$256,550	$258,870	$222,211	$224,625
City of Duarte	$24,843	$25,051	$25,291	$25,536	$25,758	$26,013	$21,773	$22,038
City of El Monte	$93,040	$93,437	$94,102	$94,780	$95,216	$95,922	$86,299	$87,033
City of El Segundo	$42,275	$42,529	$42,877	$43,231	$43,506	$43,875	$38,291	$38,674
City of Gardena	$193,948	$195,131	$196,736	$198,373	$199,653	$201,356	$175,447	$177,219
City of Glendale	$798,814	$804,584	$811,747	$819,053	$825,253	$832,854	$711,412	$719,321
City of Glendora	$71,720	$72,187	$72,799	$73,423	$73,927	$74,576	$64,511	$65,186
City of Hawaiian Gardens	$0	$0	$0	$0	$0	$0	$0	$0
City of Hawthorne	$121,117	$121,906	$122,939	$123,993	$124,843	$125,939	$108,942	$110,083
City of Hermosa Beach	$52,034	$52,300	$52,698	$53,105	$53,394	$53,817	$47,719	$48,159
City of Hidden Hills	$0	$0	$0	$0	$0	$0	$0	$0
City of Huntington Park	$96,007	$96,624	$97,438	$98,268	$98,934	$99,798	$86,457	$87,356
City of Industry	$0	$0	$0	$0	$0	$0	$0	$0
City of Inglewood	$82,193	$82,245	$82,648	$83,060	$83,137	$83,565	$79,960	$80,405
City of Irwindale	$2,017	$2,030	$2,047	$2,064	$2,079	$2,097	$1,814	$1,833
City of La Canada Flintridge	$1,182	$1,193	$1,206	$1,219	$1,231	$1,244	$1,013	$1,027
City of La Habra Heights	$2,902	$2,921	$2,945	$2,970	$2,990	$3,016	$2,617	$2,644
City of La Mirada	$0	$0	$0	$0	$0	$0	$0	$0
City of La Puente	$0	$0	$0	$0	$0	$0	$0	$0
City of La Verne	$33,878	$33,936	$34,126	$34,318	$34,388	$34,589	$32,495	$32,704
City of Lakewood	$0	$0	$0	$0	$0	$0	$0	$0
City of Lancaster	$0	$0	$0	$0	$0	$0	$0	$0
City of Lawndale	$0	$0	$0	$0	$0	$0	$0	$0
City of Long Beach	$1,286,245	$1,291,728	$1,300,915	$1,310,286	$1,316,320	$1,326,069	$1,193,070	$1,203,213
City of Los Angeles	$10,586,709	$10,663,658	$10,758,880	$10,856,006	$10,938,669	$11,039,720	$9,422,445	$9,527,577

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Annual Member Fees - Scenario 1, Baseline

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
City of Lynwood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Manhattan Beach	$81,153	$233,112	$275,302	$278,760	$287,684	$289,768	$292,594	$295,274	$298,013
City of Maywood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Monrovia	$32,172	$92,415	$142,341	$143,800	$147,078	$147,647	$148,861	$149,844	$150,853
City of Montebello	$30,129	$86,547	$149,949	$151,359	$154,300	$154,704	$155,887	$156,768	$157,673
City of Monterey Park	$15,488	$44,489	$68,183	$68,885	$70,466	$70,742	$71,325	$71,800	$72,286
City of Norwalk	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Palmdale	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Palos Verdes Estates	$3,871	$11,120	$18,081	$18,259	$18,646	$18,707	$18,856	$18,972	$19,091
City of Paramount	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Pasadena	$29,351	$84,312	$244,197	$245,830	$247,929	$247,562	$248,990	$249,614	$250,268
City of Pico Rivera	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Pomona	$157,019	$451,039	$536,739	$543,440	$560,674	$564,676	$570,154	$575,331	$580,620
City of Ranchos Palos Verdes	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Redondo Beach	$20,460	$58,772	$138,315	$139,369	$141,082	$141,073	$141,979	$142,490	$143,020
City of Rolling Hills Estates	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Rosemead	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of San Dimas	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of San Fernando	$6,803	$19,541	$31,774	$32,086	$32,767	$32,874	$33,135	$33,339	$33,549
City of San Gabriel	$39,626	$113,826	$181,844	$183,658	$187,645	$188,295	$189,808	$191,004	$192,231
City of San Marino	$11,968	$34,377	$51,304	$51,842	$53,075	$53,299	$53,746	$54,116	$54,495
City of Santa Clarita	$42,720	$122,714	$140,287	$142,095	$146,829	$147,962	$149,436	$150,859	$152,311
City of Santa Fe Springs	$6,540	$18,787	$43,757	$44,093	$44,644	$44,645	$44,933	$45,098	$45,268
City of Santa Monica	$27,422	$78,769	$296,019	$297,725	$299,156	$298,287	$299,812	$300,233	$300,685
City of Sierra Madre	$5,255	$15,095	$26,153	$26,399	$26,912	$26,982	$27,188	$27,342	$27,500
City of Signal Hill	$4,383	$12,592	$23,266	$23,475	$23,892	$23,939	$24,115	$24,240	$24,368
City of South El Monte	$0	$0	$1,069	$1,072	$1,064	$1,055	$1,058	$1,056	$1,053
City of South Gate	$30,953	$88,912	$134,423	$135,820	$138,994	$139,561	$140,721	$141,673	$142,649
City of South Pasadena	$12,331	$35,421	$61,369	$61,946	$63,149	$63,314	$63,799	$64,159	$64,530
City of Temple City	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Torrance	$28,396	$81,566	$286,287	$288,000	$289,640	$288,897	$290,419	$290,903	$291,419
City of Vernon	$11,526	$33,109	$58,833	$59,376	$60,490	$60,633	$61,090	$61,423	$61,766
City of Walnut	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of West Covina	$51,151	$146,932	$254,570	$256,964	$261,956	$262,642	$264,651	$266,147	$267,684
City of Westlake Village	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Whittier	$16,045	$46,089	$89,023	$89,798	$91,292	$91,437	$92,092	$92,540	$93,000
County of Los Angeles	$1,071,883	$3,078,994	$6,527,949	$6,581,269	$6,676,570	$6,681,692	$6,727,129	$6,755,632	$6,785,061
Inglewood Unified School District	$2,685	$7,713	$12,541	$12,665	$12,933	$12,975	$13,079	$13,159	$13,242
Los Angeles Unified School District	$67,781	$194,701	$393,676	$396,997	$403,173	$403,645	$406,464	$408,312	$410,218
UCLA	$6,072	$17,441	$109,487	$109,981	$109,955	$109,422	$109,883	$109,871	$109,869
Total	$5,038,294	$14,472,546	$24,869,467	$25,104,717	$25,598,043	$25,667,174	$25,864,433	$26,012,290	$26,164,171

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Annual Member Fees - Scenario 1, Baseline

	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
City of Lynwood	$0	$0	$0	$0	$0	$0	$0	$0
City of Manhattan Beach	$301,011	$303,868	$306,988	$310,171	$313,215	$316,526	$259,550	$262,995
City of Maywood	$0	$0	$0	$0	$0	$0	$0	$0
City of Monrovia	$152,140	$153,199	$154,539	$155,906	$157,045	$158,467	$135,991	$137,470
City of Montebello	$158,929	$159,884	$161,190	$162,523	$163,556	$164,942	$143,949	$145,391
City of Monterey Park	$72,905	$73,415	$74,059	$74,716	$75,265	$75,949	$65,127	$65,838
City of Norwalk	$0	$0	$0	$0	$0	$0	$0	$0
City of Palmdale	$0	$0	$0	$0	$0	$0	$0	$0
City of Palos Verdes Estates	$19,248	$19,374	$19,538	$19,705	$19,841	$20,015	$17,314	$17,495
City of Paramount	$0	$0	$0	$0	$0	$0	$0	$0
City of Pasadena	$251,783	$252,496	$254,073	$255,681	$256,489	$258,162	$238,040	$239,780
City of Pico Rivera	$0	$0	$0	$0	$0	$0	$0	$0
City of Pomona	$586,434	$591,953	$598,003	$604,173	$610,055	$616,474	$506,248	$512,927
City of Ranchos Palos Verdes	$0	$0	$0	$0	$0	$0	$0	$0
City of Redondo Beach	$143,981	$144,549	$145,549	$146,569	$147,197	$148,258	$134,125	$135,229
City of Rolling Hills Estates	$0	$0	$0	$0	$0	$0	$0	$0
City of Rosemead	$0	$0	$0	$0	$0	$0	$0	$0
City of San Dimas	$0	$0	$0	$0	$0	$0	$0	$0
City of San Fernando	$33,826	$34,046	$34,335	$34,629	$34,866	$35,172	$30,426	$30,744
City of San Gabriel	$193,836	$195,126	$196,797	$198,500	$199,891	$201,663	$174,002	$175,846
City of San Marino	$54,969	$55,366	$55,860	$56,363	$56,790	$57,313	$48,947	$49,492
City of Santa Clarita	$153,876	$155,390	$157,018	$158,678	$160,290	$162,018	$132,010	$133,807
City of Santa Fe Springs	$45,574	$45,756	$46,075	$46,399	$46,601	$46,939	$42,419	$42,771
City of Santa Monica	$302,303	$302,819	$304,502	$306,219	$306,836	$308,623	$290,051	$291,909
City of Sierra Madre	$27,719	$27,886	$28,113	$28,346	$28,526	$28,768	$25,106	$25,358
City of Signal Hill	$24,555	$24,691	$24,886	$25,084	$25,232	$25,438	$22,389	$22,603
City of South El Monte	$1,056	$1,054	$1,057	$1,061	$1,059	$1,062	$1,066	$1,069
City of South Gate	$143,881	$144,905	$146,186	$147,493	$148,595	$149,954	$128,322	$129,736
City of South Pasadena	$65,044	$65,435	$65,969	$66,514	$66,937	$67,505	$58,913	$59,503
City of Temple City	$0	$0	$0	$0	$0	$0	$0	$0
City of Torrance	$293,034	$293,613	$295,293	$297,007	$297,687	$299,471	$280,172	$282,027
City of Vernon	$62,251	$62,613	$63,117	$63,632	$64,024	$64,559	$56,533	$57,090
City of Walnut	$0	$0	$0	$0	$0	$0	$0	$0
City of West Covina	$269,815	$271,437	$273,654	$275,916	$277,671	$280,024	$244,384	$246,832
City of Westlake Village	$0	$0	$0	$0	$0	$0	$0	$0
City of Whittier	$93,696	$94,185	$94,909	$95,647	$96,179	$96,947	$85,798	$86,598
County of Los Angeles	$6,833,280	$6,864,620	$6,914,786	$6,965,957	$7,000,306	$7,053,544	$6,310,696	$6,366,084
Inglewood Unified School District	$13,351	$13,438	$13,552	$13,668	$13,762	$13,883	$12,009	$12,135
Los Angeles Unified School District	$413,210	$415,234	$418,347	$421,522	$423,733	$427,037	$379,998	$383,436
UCLA	$110,358	$110,375	$110,884	$111,403	$111,451	$111,991	$108,026	$108,588
Total	$26,373,504	$26,533,676	$26,751,466	$26,973,612	$27,146,853	$27,377,974	$23,866,780	$24,107,238

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Annual Costs - Scenario 2, Excluding In-Kind Match

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
LMR									
Operations and Maintenance (from Phase 5 LMR Contract)			$4,011,090	$4,011,090	$3,904,394	$3,797,698	$3,797,698	$3,744,351	$3,691,003
Capital Replacement			$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841
Administration			$1,343,528	$1,370,398	$1,397,806	$1,425,762	$1,454,278	$1,483,363	$1,513,031
LMR Total			$10,161,459	$10,188,329	$10,109,041	$10,030,302	$10,058,817	$10,034,555	$10,010,875
LTE									
Hard Match (from BTOP grant budget narrative)	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012
In-Kind	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operations and Maintenance (first 5 years from Phase 5 PSBN contract)		$5,955,692	$6,164,811	$6,346,320	$6,891,526	$7,011,440	$7,151,669	$7,294,702	$7,440,596
Capital Replacement		$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733
Administration	$1,291,357	$1,317,184	$1,343,528	$1,370,398	$1,397,806	$1,425,762	$1,454,278	$1,483,363	$1,513,031
LTE Total	$3,166,369	$12,600,621	$12,836,084	$13,044,464	$13,617,078	$13,764,948	$13,933,692	$14,105,811	$14,281,372
Total LMR+LTE	**$3,166,369**	**$12,600,621**	**$22,997,543**	**$23,232,793**	**$23,726,119**	**$23,795,249**	**$23,992,509**	**$24,140,366**	**$24,292,247**

Interest Rates	
Loan rate for hard match	5.00%
Investment rate for capital replacement sinking fund	0.625%
LTE O&M inflation (after 5th year)	2%
Administration	2%

Note: LMR and LTE O&M based on respective contracts. In funding model, annual O&M is averaged using straight line method.

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Annual Costs - Scenario 2, Excluding In-Kind Match

	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	Total
LMR									
Operations and Maintenance (from Phase 5 LMR Contract)	$3,691,003	$3,637,655	$3,637,655	$3,637,655	$3,584,307	$3,584,307	$3,584,307	$3,584,307	$55,898,520
Capital Replacement	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$72,102,617
Administration	$1,543,291	$1,574,157	$1,605,640	$1,637,753	$1,670,508	$1,703,918	$1,737,996	$1,772,756	$23,234,187
LMR Total	$10,041,135	$10,018,653	$10,050,136	$10,082,249	$10,061,656	$10,095,066	$10,129,145	$10,163,905	
LTE									
Hard Match (from BTOP grant budget narrative)	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$0	$0	$28,125,185
In-Kind	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operations and Maintenance (first 5 years from Phase 5 PSBN contract)	$7,589,408	$7,741,196	$7,896,020	$8,053,941	$8,215,019	$8,379,320	$8,546,906	$8,717,844	$119,396,411
Capital Replacement	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$55,243,728
Administration	$1,543,291	$1,574,157	$1,605,640	$1,637,753	$1,670,508	$1,703,918	$1,737,996	$1,772,756	$25,842,728
LTE Total	$14,460,445	$14,643,099	$14,829,406	$15,019,439	$15,213,273	$15,410,983	$13,737,636	$13,943,334	
Total LMR+LTE	**$24,501,580**	**$24,661,752**	**$24,879,542**	**$25,101,688**	**$25,274,929**	**$25,506,050**	**$23,866,780**	**$24,107,238**	

Interest Rates	
Loan rate for hard match	5.00%
Investment rate for capital replacement sinking fund	0.625%
LTE O&M inflation (after 5th year)	2%
Administration	2%

Note: LMR and LTE O&M based on respective contracts. In funding model, annual O&M is averaged using straight line method.

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Annual Member Fees - Scenario 2, Excluding In-Kind Match

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
City of Agoura Hills	$0	$0	$0	$0	$0	$0	$0	$0
City of Alhambra	$21,706	$86,380	$156,361	$157,971	$161,362	$161,846	$163,195	$164,212
City of Arcadia	$17,034	$67,787	$124,824	$126,092	$128,737	$129,101	$130,165	$130,958
City of Artesia	$0	$0	$0	$0	$0	$0	$0	$0
City of Avalon	$507	$2,018	$3,876	$3,915	$3,992	$4,002	$4,034	$4,057
City of Azusa	$8,391	$33,392	$57,401	$58,015	$59,350	$59,561	$60,074	$60,474
City of Baldwin Park	$13,649	$54,317	$93,370	$94,369	$96,541	$96,883	$97,718	$98,369
City of Bell	$6,386	$25,412	$43,683	$44,151	$45,167	$45,327	$45,717	$46,022
City of Bell Gardens	$5,272	$20,981	$36,252	$36,638	$37,476	$37,607	$37,929	$38,180
City of Bellflower	$0	$0	$0	$0	$0	$0	$0	$0
City of Beverly Hills	$53,173	$211,604	$293,248	$296,953	$305,963	$307,844	$310,896	$313,601
City of Bradbury	$0	$0	$0	$0	$0	$0	$0	$0
City of Burbank	$46,764	$186,096	$364,770	$368,311	$375,401	$376,227	$379,211	$381,334
City of Calabasas	$0	$0	$0	$0	$0	$0	$0	$0
City of Carson	$1,166	$4,641	$8,433	$8,520	$8,702	$8,728	$8,800	$8,855
City of Cerritos	$0	$0	$0	$0	$0	$0	$0	$0
City of Claremont	$12,751	$50,745	$78,890	$79,801	$81,895	$82,280	$83,036	$83,664
City of Commerce	$10,143	$40,364	$56,011	$56,718	$58,436	$58,794	$59,376	$59,892
City of Compton	$6,511	$25,912	$50,045	$50,536	$51,529	$51,650	$52,063	$52,361
City of Covina	$3,460	$13,771	$54,498	$54,833	$55,143	$54,991	$55,289	$55,381
City of Culver City	$14,172	$56,396	$156,250	$157,444	$159,236	$159,132	$160,165	$160,699
City of Downey	$32,979	$131,240	$213,073	$215,453	$220,798	$221,723	$223,703	$225,307
City of Duarte	$3,803	$15,133	$20,707	$20,971	$21,617	$21,754	$21,972	$22,166
City of El Monte	$8,739	$34,779	$83,965	$84,668	$85,870	$85,902	$86,504	$86,863
City of El Segundo	$5,037	$20,044	$36,909	$37,284	$38,066	$38,174	$38,488	$38,723
City of Gardena	$23,363	$92,974	$169,031	$170,765	$174,410	$174,925	$176,379	$177,471
City of Glendale	$109,177	$434,472	$681,085	$688,901	$706,784	$710,034	$716,522	$721,887
City of Glendora	$9,065	$36,074	$62,010	$62,673	$64,116	$64,343	$64,897	$65,330
City of Hawaiian Gardens	$0	$0	$0	$0	$0	$0	$0	$0
City of Hawthorne	$15,308	$60,919	$104,719	$105,840	$108,275	$108,659	$109,595	$110,325
City of Hermosa Beach	$5,518	$21,961	$46,223	$46,649	$47,461	$47,534	$47,895	$48,138
City of Hidden Hills	$0	$0	$0	$0	$0	$0	$0	$0
City of Huntington Park	$12,018	$47,825	$83,145	$84,027	$85,932	$86,226	$86,963	$87,534
City of Industry	$0	$0	$0	$0	$0	$0	$0	$0
City of Inglewood	$3,415	$13,591	$79,195	$79,593	$79,701	$79,354	$79,719	$79,749
City of Irwindale	$255	$1,014	$1,744	$1,762	$1,803	$1,809	$1,825	$1,837
City of La Canada Flintridge	$207	$823	$955	$969	$1,005	$1,014	$1,025	$1,036
City of La Habra Heights	$359	$1,429	$2,518	$2,545	$2,601	$2,610	$2,632	$2,649
City of La Mirada	$0	$0	$0	$0	$0	$0	$0	$0
City of La Puente	$0	$0	$0	$0	$0	$0	$0	$0
City of La Verne	$1,943	$7,731	$32,019	$32,210	$32,373	$32,277	$32,448	$32,496
City of Lakewood	$0	$0	$0	$0	$0	$0	$0	$0
City of Lancaster	$0	$0	$0	$0	$0	$0	$0	$0
City of Lawndale	$0	$0	$0	$0	$0	$0	$0	$0
City of Long Beach	$120,795	$480,705	$1,160,811	$1,170,535	$1,187,143	$1,187,584	$1,195,905	$1,200,869
City of Los Angeles	$1,453,788	$5,785,375	$9,018,449	$9,122,387	$9,360,910	$9,404,587	$9,490,833	$9,562,397

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Annual Member Fees - Scenario 2, Excluding In-Kind Match

	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
City of Agoura Hills	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Alhambra	$165,256	$166,687	$167,788	$169,277	$170,796	$171,986	$173,566	$162,324	$163,968
City of Arcadia	$131,772	$132,902	$133,761	$134,936	$136,135	$137,064	$138,311	$129,496	$130,794
City of Artesia	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Avalon	$4,081	$4,115	$4,140	$4,176	$4,212	$4,239	$4,277	$4,015	$4,054
City of Azusa	$60,885	$61,429	$61,861	$62,428	$63,005	$63,471	$64,072	$59,716	$60,341
City of Baldwin Park	$99,037	$99,922	$100,625	$101,546	$102,486	$103,244	$104,221	$97,136	$98,153
City of Bell	$46,334	$46,748	$47,077	$47,508	$47,948	$48,303	$48,760	$45,445	$45,921
City of Bell Gardens	$38,438	$38,781	$39,052	$39,408	$39,772	$40,064	$40,442	$37,706	$38,099
City of Bellflower	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Beverly Hills	$316,368	$319,606	$322,502	$325,871	$329,308	$332,406	$335,981	$308,141	$311,861
City of Bradbury	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Burbank	$383,519	$386,685	$388,995	$392,290	$395,650	$398,158	$401,653	$377,528	$381,165
City of Calabasas	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Carson	$8,911	$8,988	$9,047	$9,127	$9,209	$9,272	$9,357	$8,754	$8,842
City of Cerritos	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Claremont	$84,307	$85,110	$85,785	$86,620	$87,471	$88,196	$89,082	$82,434	$83,356
City of Commerce	$60,420	$61,038	$61,590	$62,233	$62,889	$63,479	$64,162	$58,851	$59,561
City of Compton	$52,667	$53,105	$53,429	$53,885	$54,350	$54,701	$55,185	$51,824	$52,328
City of Covina	$55,478	$55,794	$55,905	$56,234	$56,569	$56,699	$57,048	$55,355	$55,718
City of Culver City	$161,255	$162,351	$162,949	$164,089	$165,252	$165,920	$167,129	$159,971	$161,230
City of Downey	$226,950	$229,052	$230,778	$232,965	$235,195	$237,053	$239,373	$222,211	$224,625
City of Duarte	$22,364	$22,595	$22,803	$23,043	$23,288	$23,510	$23,765	$21,773	$22,038
City of El Monte	$87,235	$87,874	$88,270	$88,935	$89,613	$90,050	$90,755	$86,299	$87,033
City of El Segundo	$38,964	$39,298	$39,552	$39,899	$40,253	$40,528	$40,897	$38,291	$38,674
City of Gardena	$178,593	$180,136	$181,319	$182,924	$184,561	$185,841	$187,544	$175,447	$177,219
City of Glendale	$727,385	$734,269	$740,040	$747,203	$754,509	$760,709	$768,310	$711,412	$719,321
City of Glendora	$65,773	$66,361	$66,828	$67,440	$68,064	$68,568	$69,217	$64,511	$65,186
City of Hawaiian Gardens	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Hawthorne	$111,075	$112,067	$112,856	$113,889	$114,943	$115,793	$116,889	$108,942	$110,083
City of Hermosa Beach	$48,389	$48,772	$49,037	$49,436	$49,842	$50,132	$50,555	$47,719	$48,159
City of Hidden Hills	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Huntington Park	$88,120	$88,902	$89,520	$90,333	$91,163	$91,829	$92,693	$86,457	$87,356
City of Industry	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Inglewood	$79,786	$80,174	$80,226	$80,629	$81,041	$81,117	$81,546	$79,960	$80,405
City of Irwindale	$1,849	$1,866	$1,879	$1,896	$1,914	$1,928	$1,946	$1,814	$1,833
City of La Canada Flintridge	$1,048	$1,060	$1,071	$1,084	$1,097	$1,109	$1,122	$1,013	$1,027
City of La Habra Heights	$2,666	$2,690	$2,708	$2,733	$2,758	$2,777	$2,803	$2,617	$2,644
City of La Mirada	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of La Puente	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of La Verne	$32,548	$32,729	$32,788	$32,977	$33,170	$33,240	$33,441	$32,495	$32,704
City of Lakewood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Lancaster	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Lawndale	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Long Beach	$1,206,002	$1,214,832	$1,220,316	$1,229,502	$1,238,873	$1,244,907	$1,254,657	$1,193,070	$1,203,213
City of Los Angeles	$9,635,721	$9,727,245	$9,804,194	$9,899,416	$9,996,542	$10,079,205	$10,180,255	$9,422,445	$9,527,577

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Annual Member Fees - Scenario 2, Excluding In-Kind Match

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
City of Lynwood	$0	$0	$0	$0	$0	$0	$0	$0
City of Manhattan Beach	$51,001	$202,960	$245,151	$248,609	$257,532	$259,617	$262,442	$265,123
City of Maywood	$0	$0	$0	$0	$0	$0	$0	$0
City of Monrovia	$20,219	$80,462	$130,388	$131,847	$135,125	$135,694	$136,908	$137,891
City of Montebello	$18,935	$75,353	$138,755	$140,165	$143,106	$143,509	$144,692	$145,574
City of Monterey Park	$9,734	$38,735	$62,429	$63,130	$64,711	$64,988	$65,571	$66,045
City of Norwalk	$0	$0	$0	$0	$0	$0	$0	$0
City of Palmdale	$0	$0	$0	$0	$0	$0	$0	$0
City of Palos Verdes Estates	$2,433	$9,681	$16,642	$16,820	$17,208	$17,269	$17,417	$17,533
City of Paramount	$0	$0	$0	$0	$0	$0	$0	$0
City of Pasadena	$18,446	$73,407	$233,292	$234,925	$237,024	$236,657	$238,085	$238,709
City of Pico Rivera	$0	$0	$0	$0	$0	$0	$0	$0
City of Pomona	$98,680	$392,700	$478,400	$485,102	$502,336	$506,337	$511,816	$516,993
City of Ranchos Palos Verdes	$0	$0	$0	$0	$0	$0	$0	$0
City of Redondo Beach	$12,859	$51,171	$130,714	$131,768	$133,480	$133,471	$134,377	$134,888
City of Rolling Hills Estates	$0	$0	$0	$0	$0	$0	$0	$0
City of Rosemead	$0	$0	$0	$0	$0	$0	$0	$0
City of San Dimas	$0	$0	$0	$0	$0	$0	$0	$0
City of San Fernando	$4,275	$17,014	$29,246	$29,559	$30,239	$30,347	$30,608	$30,812
City of San Gabriel	$24,903	$99,103	$167,121	$168,935	$172,923	$173,573	$175,086	$176,281
City of San Marino	$7,521	$29,931	$46,858	$47,396	$48,628	$48,853	$49,300	$49,669
City of Santa Clarita	$26,848	$106,842	$124,415	$126,223	$130,957	$132,090	$133,564	$134,986
City of Santa Fe Springs	$4,110	$16,357	$41,327	$41,663	$42,214	$42,215	$42,503	$42,668
City of Santa Monica	$17,233	$68,581	$285,831	$287,536	$288,968	$288,099	$289,623	$290,045
City of Sierra Madre	$3,303	$13,142	$24,200	$24,446	$24,959	$25,030	$25,236	$25,390
City of Signal Hill	$2,755	$10,963	$21,638	$21,846	$22,263	$22,311	$22,487	$22,611
City of South El Monte	$0	$0	$1,069	$1,072	$1,064	$1,055	$1,058	$1,056
City of South Gate	$19,453	$77,412	$122,923	$124,320	$127,494	$128,061	$129,221	$130,173
City of South Pasadena	$7,749	$30,839	$56,787	$57,364	$58,568	$58,733	$59,217	$59,578
City of Temple City	$0	$0	$0	$0	$0	$0	$0	$0
City of Torrance	$17,845	$71,016	$275,737	$277,450	$279,090	$278,347	$279,869	$280,353
City of Vernon	$7,244	$28,827	$54,551	$55,094	$56,207	$56,351	$56,807	$57,141
City of Walnut	$0	$0	$0	$0	$0	$0	$0	$0
City of West Covina	$32,146	$127,927	$235,566	$237,960	$242,952	$243,637	$245,646	$247,142
City of Westlake Village	$0	$0	$0	$0	$0	$0	$0	$0
City of Whittier	$10,084	$40,128	$83,062	$83,837	$85,331	$85,475	$86,131	$86,578
County of Los Angeles	$673,636	$2,680,747	$6,129,702	$6,183,022	$6,278,323	$6,283,445	$6,328,883	$6,357,385
Inglewood Unified School District	$1,687	$6,715	$11,544	$11,667	$11,936	$11,978	$12,081	$12,162
Los Angeles Unified School District	$42,598	$169,518	$368,492	$371,814	$377,989	$378,461	$381,281	$383,129
UCLA	$3,816	$15,185	$107,231	$107,725	$107,699	$107,166	$107,627	$107,615
Total	$3,166,369	$12,600,621	$22,997,543	$23,232,793	$23,726,119	$23,795,249	$23,992,509	$24,140,366

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Annual Member Fees - Scenario 2, Excluding In-Kind Match

	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
City of Lynwood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Manhattan Beach	$267,861	$270,860	$273,717	$276,837	$280,019	$283,063	$286,374	$259,550	$262,995
City of Maywood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Monrovia	$138,899	$140,187	$141,246	$142,586	$143,952	$145,092	$146,514	$135,991	$137,470
City of Montebello	$146,479	$147,735	$148,690	$149,996	$151,328	$152,362	$153,748	$143,949	$145,391
City of Monterey Park	$66,531	$67,150	$67,661	$68,305	$68,962	$69,511	$70,194	$65,127	$65,838
City of Norwalk	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Palmdale	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Palos Verdes Estates	$17,652	$17,810	$17,936	$18,100	$18,267	$18,402	$18,577	$17,314	$17,495
City of Paramount	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Pasadena	$239,362	$240,878	$241,591	$243,167	$244,775	$245,583	$247,256	$238,040	$239,780
City of Pico Rivera	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Pomona	$522,282	$528,096	$533,615	$539,664	$545,834	$551,716	$558,135	$506,248	$512,927
City of Ranchos Palos Verdes	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Redondo Beach	$135,418	$136,379	$136,947	$137,947	$138,967	$139,595	$140,657	$134,125	$135,229
City of Rolling Hills Estates	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Rosemead	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of San Dimas	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of San Fernando	$31,021	$31,298	$31,519	$31,807	$32,101	$32,339	$32,645	$30,426	$30,744
City of San Gabriel	$177,508	$179,113	$180,404	$182,074	$183,778	$185,168	$186,941	$174,002	$175,846
City of San Marino	$50,048	$50,522	$50,920	$51,413	$51,916	$52,344	$52,867	$48,947	$49,492
City of Santa Clarita	$136,439	$138,003	$139,518	$141,146	$142,806	$144,418	$146,146	$132,010	$133,807
City of Santa Fe Springs	$42,838	$43,144	$43,326	$43,645	$43,969	$44,171	$44,509	$42,419	$42,771
City of Santa Monica	$290,497	$292,115	$292,631	$294,314	$296,031	$296,648	$298,434	$290,051	$291,909
City of Sierra Madre	$25,548	$25,767	$25,933	$26,161	$26,393	$26,574	$26,815	$25,106	$25,358
City of Signal Hill	$22,740	$22,927	$23,063	$23,257	$23,455	$23,603	$23,809	$22,389	$22,603
City of South El Monte	$1,053	$1,056	$1,054	$1,057	$1,061	$1,059	$1,062	$1,066	$1,069
City of South Gate	$131,149	$132,380	$133,405	$134,686	$135,993	$137,094	$138,454	$128,322	$129,736
City of South Pasadena	$59,948	$60,462	$60,853	$61,388	$61,933	$62,356	$62,923	$58,913	$59,503
City of Temple City	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Torrance	$280,869	$282,484	$283,063	$284,743	$286,457	$287,137	$288,920	$280,172	$282,027
City of Vernon	$57,484	$57,969	$58,331	$58,835	$59,349	$59,742	$60,277	$56,533	$57,090
City of Walnut	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of West Covina	$248,679	$250,811	$252,432	$254,650	$256,912	$258,666	$261,020	$244,384	$246,832
City of Westlake Village	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Whittier	$87,039	$87,735	$88,223	$88,947	$89,686	$90,218	$90,986	$85,798	$86,598
County of Los Angeles	$6,386,815	$6,435,034	$6,466,373	$6,516,540	$6,567,710	$6,602,060	$6,655,297	$6,310,696	$6,366,084
Inglewood Unified School District	$12,244	$12,354	$12,440	$12,554	$12,670	$12,764	$12,885	$12,009	$12,135
Los Angeles Unified School District	$385,034	$388,027	$390,051	$393,164	$396,339	$398,550	$401,854	$379,998	$383,436
UCLA	$107,613	$108,102	$108,119	$108,628	$109,147	$109,195	$109,735	$108,026	$108,588
Total	$24,292,247	$24,501,580	$24,661,752	$24,879,542	$25,101,688	$25,274,929	$25,506,050	$23,866,780	$24,107,238

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Annual Costs - Scenario 3, Excluding In-Kind Match and Capital Replacement

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
LMR									
Operations and Maintenance (from Phase 5 LMR Contract)			$4,011,090	$4,011,090	$3,904,394	$3,797,698	$3,797,698	$3,744,351	$3,691,003
Capital Replacement			$0	$0	$0	$0	$0	$0	$0
Administration			$1,343,528	$1,370,398	$1,397,806	$1,425,762	$1,454,278	$1,483,363	$1,513,031
LMR Total			$5,354,618	$5,381,488	$5,302,200	$5,223,460	$5,251,976	$5,227,714	$5,204,034
LTE									
Hard Match (from BTOP grant budget narrative)	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012
In-Kind	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operations and Maintenance (first 5 years from Phase 5 PSBN contract)		$5,955,692	$6,164,811	$6,346,320	$6,891,526	$7,011,440	$7,151,669	$7,294,702	$7,440,596
Capital Replacement	$0	$0	$0	$0	$0	$0	$0	$0	$0
Administration	$1,291,357	$1,317,184	$1,343,528	$1,370,398	$1,397,806	$1,425,762	$1,454,278	$1,483,363	$1,513,031
LTE Total	$3,166,369	$9,147,888	$9,383,351	$9,591,731	$10,164,345	$10,312,215	$10,480,959	$10,653,078	$10,828,639
Total LMR+LTE	**$3,166,369**	**$9,147,888**	**$14,737,969**	**$14,973,219**	**$15,466,545**	**$15,535,675**	**$15,732,935**	**$15,880,792**	**$16,032,673**

Interest Rates	
Loan rate for hard match	5.00%
Investment rate for capital replacement sinking fund	0.625%
LTE O&M inflation (after 5th year)	2%
Administration	2%

Note: LMR and LTE O&M based on respective contracts. In funding model, annual O&M is averaged using straight line method.

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Annual Costs - Scenario 3, Excluding In-Kind Match and Capital Replacement

	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	Total
LMR									
Operations and Maintenance (from Phase 5 LMR Contract)	$3,691,003	$3,637,655	$3,637,655	$3,637,655	$3,584,307	$3,584,307	$3,584,307	$3,584,307	$55,898,520
Capital Replacement	$0	$0	$0	$0	$0	$0	$0	$0	$0
Administration	$1,543,291	$1,574,157	$1,605,640	$1,637,753	$1,670,508	$1,703,918	$1,737,996	$1,772,756	$23,234,187
LMR Total	$5,234,294	$5,211,812	$5,243,295	$5,275,408	$5,254,815	$5,288,225	$5,322,303	$5,357,063	
LTE									
Hard Match (from BTOP grant budget narrative)	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$0	$0	$28,125,185
In-Kind	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operations and Maintenance (first 5 years from Phase 5 PSBN contract)	$7,589,408	$7,741,196	$7,896,020	$8,053,941	$8,215,019	$8,379,320	$8,546,906	$8,717,844	$119,396,411
Capital Replacement	$0	$0	$0	$0	$0	$0	$0	$0	$0
Administration	$1,543,291	$1,574,157	$1,605,640	$1,637,753	$1,670,508	$1,703,918	$1,737,996	$1,772,756	$25,842,728
LTE Total	$11,007,712	$11,190,366	$11,376,673	$11,566,706	$11,760,540	$11,958,250	$10,284,903	$10,490,601	
Total LMR+LTE	**$16,242,006**	**$16,402,178**	**$16,619,968**	**$16,842,114**	**$17,015,355**	**$17,246,475**	**$15,607,206**	**$15,847,664**	

Interest Rates	
Loan rate for hard match	5.00%
Investment rate for capital replacement sinking fund	0.625%
LTE O&M inflation (after 5th year)	2%
Administration	2%

Note: LMR and LTE O&M based on respective contracts. In funding model, annual O&M is averaged using straight line method.

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Annual Member Fees - Scenario 3, Excluding In-Kind Match and Capital Replacement

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
City of Agoura Hills	$0	$0	$0	$0	$0	$0	$0	$0
City of Alhambra	$21,706	$62,711	$100,351	$101,960	$105,352	$105,836	$107,185	$108,202
City of Arcadia	$17,034	$49,213	$79,867	$81,136	$83,781	$84,145	$85,209	$86,002
City of Artesia	$0	$0	$0	$0	$0	$0	$0	$0
City of Avalon	$507	$1,465	$2,462	$2,500	$2,578	$2,588	$2,620	$2,643
City of Azusa	$8,391	$24,242	$37,189	$37,803	$39,138	$39,349	$39,862	$40,262
City of Baldwin Park	$13,649	$39,433	$60,493	$61,492	$63,663	$64,006	$64,840	$65,491
City of Bell	$6,386	$18,449	$28,302	$28,769	$29,785	$29,945	$30,335	$30,640
City of Bell Gardens	$5,272	$15,232	$23,465	$23,851	$24,688	$24,819	$25,142	$25,393
City of Bellflower	$0	$0	$0	$0	$0	$0	$0	$0
City of Beverly Hills	$53,173	$153,622	$198,515	$202,220	$211,229	$213,111	$216,162	$218,867
City of Bradbury	$0	$0	$0	$0	$0	$0	$0	$0
City of Burbank	$46,764	$135,104	$230,901	$234,442	$241,532	$242,358	$245,342	$247,466
City of Calabasas	$0	$0	$0	$0	$0	$0	$0	$0
City of Carson	$1,166	$3,369	$5,409	$5,495	$5,677	$5,703	$5,776	$5,830
City of Cerritos	$0	$0	$0	$0	$0	$0	$0	$0
City of Claremont	$12,751	$36,840	$52,120	$53,031	$55,125	$55,509	$56,265	$56,894
City of Commerce	$10,143	$29,304	$37,906	$38,613	$40,331	$40,689	$41,271	$41,787
City of Compton	$6,511	$18,812	$31,758	$32,249	$33,242	$33,363	$33,776	$34,073
City of Covina	$3,460	$9,997	$31,581	$31,916	$32,226	$32,074	$32,372	$32,463
City of Culver City	$14,172	$40,943	$94,060	$95,254	$97,046	$96,942	$97,974	$98,509
City of Downey	$32,979	$95,279	$139,561	$141,941	$147,286	$148,211	$150,191	$151,794
City of Duarte	$3,803	$10,986	$14,057	$14,321	$14,968	$15,104	$15,322	$15,516
City of El Monte	$8,739	$25,249	$51,475	$52,179	$53,380	$53,413	$54,014	$54,374
City of El Segundo	$5,037	$14,552	$23,616	$23,991	$24,773	$24,881	$25,195	$25,430
City of Gardena	$23,363	$67,498	$108,398	$110,132	$113,777	$114,292	$115,746	$116,839
City of Glendale	$109,177	$315,421	$449,215	$457,031	$474,914	$478,165	$484,652	$490,017
City of Glendora	$9,065	$26,189	$40,175	$40,839	$42,281	$42,508	$43,062	$43,495
City of Hawaiian Gardens	$0	$0	$0	$0	$0	$0	$0	$0
City of Hawthorne	$15,308	$44,226	$67,846	$68,966	$71,401	$71,786	$72,721	$73,452
City of Hermosa Beach	$5,518	$15,943	$28,922	$29,349	$30,161	$30,233	$30,595	$30,838
City of Hidden Hills	$0	$0	$0	$0	$0	$0	$0	$0
City of Huntington Park	$12,018	$34,720	$53,755	$54,637	$56,542	$56,836	$57,573	$58,144
City of Industry	$0	$0	$0	$0	$0	$0	$0	$0
City of Inglewood	$3,415	$9,867	$44,557	$44,955	$45,063	$44,716	$45,081	$45,111
City of Irwindale	$255	$736	$1,130	$1,148	$1,189	$1,195	$1,211	$1,223
City of La Canada Flintridge	$207	$597	$674	$688	$725	$733	$745	$756
City of La Habra Heights	$359	$1,037	$1,624	$1,651	$1,707	$1,716	$1,738	$1,755
City of La Mirada	$0	$0	$0	$0	$0	$0	$0	$0
City of La Puente	$0	$0	$0	$0	$0	$0	$0	$0
City of La Verne	$1,943	$5,612	$18,479	$18,671	$18,834	$18,738	$18,909	$18,957
City of Lakewood	$0	$0	$0	$0	$0	$0	$0	$0
City of Lancaster	$0	$0	$0	$0	$0	$0	$0	$0
City of Lawndale	$0	$0	$0	$0	$0	$0	$0	$0
City of Long Beach	$120,795	$348,986	$711,619	$721,343	$737,952	$738,392	$746,713	$751,677

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Annual Member Fees - Scenario 3, Excluding In-Kind Match and Capital Replacement

	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
City of Agoura Hills	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Alhambra	$109,246	$110,677	$111,778	$113,267	$114,786	$115,976	$117,556	$106,314	$107,958
City of Arcadia	$86,816	$87,946	$88,805	$89,980	$91,178	$92,108	$93,355	$84,540	$85,837
City of Artesia	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Avalon	$2,667	$2,701	$2,726	$2,762	$2,798	$2,825	$2,863	$2,601	$2,640
City of Azusa	$40,673	$41,217	$41,649	$42,215	$42,793	$43,259	$43,860	$39,504	$40,129
City of Baldwin Park	$66,159	$67,045	$67,748	$68,669	$69,608	$70,367	$71,344	$64,258	$65,275
City of Bell	$30,953	$31,367	$31,696	$32,127	$32,566	$32,921	$33,378	$30,063	$30,539
City of Bell Gardens	$25,651	$25,993	$26,264	$26,621	$26,984	$27,277	$27,655	$24,918	$25,312
City of Bellflower	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Beverly Hills	$221,635	$224,873	$227,769	$231,138	$234,575	$237,672	$241,248	$213,408	$217,128
City of Bradbury	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Burbank	$249,650	$252,817	$255,127	$258,421	$261,781	$264,289	$267,785	$243,659	$247,296
City of Calabasas	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Carson	$5,886	$5,963	$6,022	$6,102	$6,184	$6,248	$6,333	$5,729	$5,817
City of Cerritos	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Claremont	$57,537	$58,339	$59,015	$59,849	$60,701	$61,426	$62,312	$55,664	$56,585
City of Commerce	$42,315	$42,933	$43,485	$44,128	$44,784	$45,374	$46,057	$40,746	$41,456
City of Compton	$34,379	$34,818	$35,141	$35,598	$36,063	$36,414	$36,898	$33,536	$34,040
City of Covina	$32,561	$32,877	$32,987	$33,316	$33,651	$33,781	$34,130	$32,437	$32,801
City of Culver City	$99,064	$100,160	$100,759	$101,899	$103,062	$103,729	$104,939	$97,781	$99,039
City of Downey	$153,438	$155,539	$157,266	$159,453	$161,683	$163,541	$165,861	$148,699	$151,113
City of Duarte	$15,715	$15,945	$16,153	$16,393	$16,638	$16,860	$17,115	$15,123	$15,388
City of El Monte	$54,745	$55,384	$55,781	$56,445	$57,123	$57,560	$58,265	$53,809	$54,543
City of El Segundo	$25,671	$26,004	$26,259	$26,606	$26,960	$27,235	$27,604	$24,998	$25,381
City of Gardena	$117,961	$119,503	$120,687	$122,292	$123,929	$125,208	$126,911	$114,814	$116,586
City of Glendale	$495,515	$502,400	$508,170	$515,333	$522,639	$528,839	$536,440	$479,543	$487,451
City of Glendora	$43,938	$44,526	$44,993	$45,605	$46,229	$46,733	$47,382	$42,676	$43,351
City of Hawaiian Gardens	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Hawthorne	$74,201	$75,194	$75,982	$77,015	$78,069	$78,919	$80,016	$72,069	$73,209
City of Hermosa Beach	$31,088	$31,471	$31,737	$32,135	$32,542	$32,831	$33,254	$30,418	$30,858
City of Hidden Hills	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Huntington Park	$58,730	$59,512	$60,130	$60,943	$61,773	$62,439	$63,303	$57,067	$57,966
City of Industry	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Inglewood	$45,148	$45,536	$45,588	$45,992	$46,403	$46,480	$46,908	$45,322	$45,767
City of Irwindale	$1,235	$1,252	$1,265	$1,282	$1,300	$1,314	$1,332	$1,200	$1,219
City of La Canada Flintridge	$767	$779	$791	$803	$816	$828	$842	$733	$747
City of La Habra Heights	$1,772	$1,796	$1,814	$1,838	$1,863	$1,883	$1,909	$1,723	$1,750
City of La Mirada	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of La Puente	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of La Verne	$19,008	$19,190	$19,249	$19,438	$19,631	$19,701	$19,901	$18,956	$19,164
City of Lakewood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Lancaster	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Lawndale	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Long Beach	$756,811	$765,641	$771,124	$780,311	$789,681	$795,716	$805,465	$743,879	$754,022

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Annual Member Fees - Scenario 3, Excluding In-Kind Match and Capital Replacement

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
City of Los Angeles	$1,453,788	$4,200,108	$5,954,928	$6,058,866	$6,297,389	$6,341,066	$6,427,312	$6,498,876
City of Lynwood	$0	$0	$0	$0	$0	$0	$0	$0
City of Manhattan Beach	$51,001	$147,347	$171,373	$174,831	$183,755	$185,839	$188,665	$191,345
City of Maywood	$0	$0	$0	$0	$0	$0	$0	$0
City of Monrovia	$20,219	$58,414	$85,434	$86,893	$90,172	$90,741	$91,954	$92,937
City of Montebello	$18,935	$54,705	$88,781	$90,191	$93,132	$93,536	$94,719	$95,600
City of Monterey Park	$9,734	$28,121	$40,949	$41,650	$43,231	$43,508	$44,091	$44,565
City of Norwalk	$0	$0	$0	$0	$0	$0	$0	$0
City of Palmdale	$0	$0	$0	$0	$0	$0	$0	$0
City of Palos Verdes Estates	$2,433	$7,029	$10,782	$10,960	$11,347	$11,408	$11,557	$11,673
City of Paramount	$0	$0	$0	$0	$0	$0	$0	$0
City of Pasadena	$18,446	$53,293	$138,193	$139,826	$141,925	$141,558	$142,986	$143,611
City of Pico Rivera	$0	$0	$0	$0	$0	$0	$0	$0
City of Pomona	$98,680	$285,095	$333,726	$340,428	$357,662	$361,663	$367,142	$372,319
City of Ranchos Palos Verdes	$0	$0	$0	$0	$0	$0	$0	$0
City of Redondo Beach	$12,859	$37,149	$79,517	$80,571	$82,283	$82,275	$83,181	$83,692
City of Rolling Hills Estates	$0	$0	$0	$0	$0	$0	$0	$0
City of Rosemead	$0	$0	$0	$0	$0	$0	$0	$0
City of San Dimas	$0	$0	$0	$0	$0	$0	$0	$0
City of San Fernando	$4,275	$12,352	$18,948	$19,261	$19,941	$20,048	$20,310	$20,514
City of San Gabriel	$24,903	$71,948	$108,666	$110,480	$114,467	$115,118	$116,630	$117,826
City of San Marino	$7,521	$21,729	$30,914	$31,452	$32,684	$32,909	$33,355	$33,725
City of Santa Clarita	$26,848	$77,566	$87,770	$89,578	$94,312	$95,445	$96,920	$98,342
City of Santa Fe Springs	$4,110	$11,875	$25,178	$25,514	$26,064	$26,065	$26,353	$26,518
City of Santa Monica	$17,233	$49,789	$164,876	$166,581	$168,012	$167,144	$168,668	$169,089
City of Sierra Madre	$3,303	$9,541	$15,484	$15,730	$16,243	$16,314	$16,520	$16,674
City of Signal Hill	$2,755	$7,959	$13,681	$13,890	$14,306	$14,354	$14,530	$14,655
City of South El Monte	$0	$0	$563	$566	$558	$550	$553	$550
City of South Gate	$19,453	$56,200	$80,867	$82,263	$85,437	$86,004	$87,165	$88,117
City of South Pasadena	$7,749	$22,389	$36,335	$36,912	$38,115	$38,281	$38,765	$39,126
City of Temple City	$0	$0	$0	$0	$0	$0	$0	$0
City of Torrance	$17,845	$51,557	$160,063	$161,775	$163,416	$162,673	$164,195	$164,679
City of Vernon	$7,244	$20,928	$34,738	$35,281	$36,395	$36,538	$36,995	$37,328
City of Walnut	$0	$0	$0	$0	$0	$0	$0	$0
City of West Covina	$32,146	$92,874	$150,725	$153,119	$158,111	$158,797	$160,805	$162,301
City of Westlake Village	$0	$0	$0	$0	$0	$0	$0	$0
City of Whittier	$10,084	$29,133	$52,111	$52,886	$54,381	$54,525	$55,181	$55,628
County of Los Angeles	$673,636	$1,946,188	$3,787,324	$3,840,644	$3,935,945	$3,941,067	$3,986,505	$4,015,007
Inglewood Unified School District	$1,687	$4,875	$7,479	$7,602	$7,871	$7,913	$8,016	$8,097
Los Angeles Unified School District	$42,598	$123,068	$229,417	$232,738	$238,913	$239,385	$242,205	$244,053
UCLA	$3,816	$11,024	$59,662	$60,156	$60,130	$59,597	$60,058	$60,047
Total	$3,166,369	$9,147,888	$14,737,969	$14,973,219	$15,466,545	$15,535,675	$15,732,935	$15,880,792

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Annual Member Fees - Scenario 3, Excluding In-Kind Match and Capital Replacement

	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
City of Los Angeles	$6,572,200	$6,663,724	$6,740,673	$6,835,895	$6,933,021	$7,015,684	$7,116,735	$6,358,924	$6,464,056
City of Lynwood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Manhattan Beach	$194,084	$197,082	$199,939	$203,059	$206,241	$209,286	$212,597	$185,772	$189,217
City of Maywood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Monrovia	$93,946	$95,233	$96,292	$97,632	$98,999	$100,138	$101,560	$91,037	$92,516
City of Montebello	$96,505	$97,761	$98,716	$100,022	$101,355	$102,388	$103,774	$93,975	$95,418
City of Monterey Park	$45,052	$45,670	$46,181	$46,825	$47,482	$48,031	$48,714	$43,647	$44,358
City of Norwalk	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Palmdale	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Palos Verdes Estates	$11,792	$11,950	$12,075	$12,240	$12,407	$12,542	$12,716	$11,453	$11,635
City of Paramount	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Pasadena	$144,264	$145,779	$146,493	$148,069	$149,677	$150,485	$152,158	$142,941	$144,682
City of Pico Rivera	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Pomona	$377,608	$383,422	$388,941	$394,990	$401,160	$407,042	$413,462	$361,574	$368,253
City of Ranchos Palos Verdes	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Redondo Beach	$84,222	$85,183	$85,751	$86,751	$87,771	$88,399	$89,460	$82,928	$84,032
City of Rolling Hills Estates	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Rosemead	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of San Dimas	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of San Fernando	$20,723	$21,000	$21,220	$21,509	$21,803	$22,041	$22,347	$20,127	$20,446
City of San Gabriel	$119,053	$120,658	$121,948	$123,619	$125,322	$126,713	$128,485	$115,546	$117,391
City of San Marino	$34,104	$34,578	$34,976	$35,469	$35,972	$36,399	$36,923	$33,003	$33,548
City of Santa Clarita	$99,794	$101,359	$102,873	$104,501	$106,162	$107,774	$109,501	$95,365	$97,163
City of Santa Fe Springs	$26,688	$26,994	$27,177	$27,495	$27,820	$28,021	$28,359	$26,270	$26,621
City of Santa Monica	$169,542	$171,159	$171,676	$173,359	$175,076	$175,693	$177,479	$169,096	$170,954
City of Sierra Madre	$16,832	$17,051	$17,217	$17,445	$17,677	$17,858	$18,099	$16,390	$16,642
City of Signal Hill	$14,783	$14,970	$15,106	$15,300	$15,499	$15,646	$15,853	$14,432	$14,647
City of South El Monte	$548	$551	$548	$552	$555	$553	$556	$560	$564
City of South Gate	$89,093	$90,324	$91,349	$92,630	$93,936	$95,038	$96,398	$86,265	$87,680
City of South Pasadena	$39,496	$40,010	$40,401	$40,935	$41,481	$41,904	$42,471	$38,461	$39,051
City of Temple City	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Torrance	$165,195	$166,810	$167,389	$169,069	$170,783	$171,463	$173,246	$164,498	$166,353
City of Vernon	$37,671	$38,156	$38,518	$39,022	$39,537	$39,929	$40,464	$36,720	$37,277
City of Walnut	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of West Covina	$163,838	$165,970	$167,591	$169,809	$172,071	$173,825	$176,179	$159,543	$161,992
City of Westlake Village	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Whittier	$56,089	$56,785	$57,273	$57,997	$58,735	$59,267	$60,036	$54,848	$55,647
County of Los Angeles	$4,044,437	$4,092,656	$4,123,995	$4,174,162	$4,225,332	$4,259,682	$4,312,919	$3,968,318	$4,023,706
Inglewood Unified School District	$8,179	$8,289	$8,376	$8,490	$8,606	$8,700	$8,820	$7,944	$8,070
Los Angeles Unified School District	$245,959	$248,951	$250,975	$254,088	$257,263	$259,474	$262,778	$240,923	$244,360
UCLA	$60,044	$60,533	$60,550	$61,059	$61,578	$61,626	$62,166	$60,457	$61,019
Total	$16,032,673	$16,242,006	$16,402,178	$16,619,968	$16,842,114	$17,015,355	$17,246,475	$15,607,206	$15,847,664

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Annual Costs - Scenario 8, Excluding In-Kind Match and Adding HSS Additive Alt Maintenance

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
LMR									
Operations and Maintenance (from Phase 5 LMR Contract)			$4,011,090	$4,011,090	$3,904,394	$3,797,698	$3,797,698	$3,744,351	$3,691,003
Capital Replacement			$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841
Administration			$1,343,528	$1,370,398	$1,397,806	$1,425,762	$1,454,278	$1,483,363	$1,513,031
LMR Total			$10,161,459	$10,188,329	$10,109,041	$10,030,302	$10,058,817	$10,034,555	$10,010,875
LTE									
Hard Match (from BTOP grant budget narrative)	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012
In-Kind	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operations and Maintenance (includes Maintenance of HSS)		$5,971,773	$6,180,892	$6,362,401	$6,907,607	$7,027,521	$7,168,071	$7,311,433	$7,457,662
Capital Replacement		$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733
Administration	$1,291,357	$1,317,184	$1,343,528	$1,370,398	$1,397,806	$1,425,762	$1,454,278	$1,483,363	$1,513,031
LTE Total	$3,166,369	$12,616,702	$12,852,165	$13,060,545	$13,633,159	$13,781,029	$13,950,094	$14,122,541	$14,298,437
Total LMR+LTE	**$3,166,369**	**$12,616,702**	**$23,013,624**	**$23,248,874**	**$23,742,200**	**$23,811,330**	**$24,008,911**	**$24,157,097**	**$24,309,312**

Interest Rates	
Loan rate for hard match	5.00%
Investment rate for capital replacement sinking fund	0.625%
LTE O&M inflation (after 5th year)	2%
Administration	2%

Note: LMR and LTE O&M based on respective contracts. In funding model, annual O&M is averaged using straight line method.

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Annual Costs - Scenario 8, Excluding In-Kind Match and Adding HSS Additive Alt Maintenance

	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	Total
LMR									
Operations and Maintenance (from Phase 5 LMR Contract)	$3,691,003	$3,637,655	$3,637,655	$3,637,655	$3,584,307	$3,584,307	$3,584,307	$3,584,307	$55,898,520
Capital Replacement	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$4,806,841	$72,102,617
Administration	$1,543,291	$1,574,157	$1,605,640	$1,637,753	$1,670,508	$1,703,918	$1,737,996	$1,772,756	$23,234,187
LMR Total	$10,041,135	$10,018,653	$10,050,136	$10,082,249	$10,061,656	$10,095,066	$10,129,145	$10,163,905	
LTE									
Hard Match (from BTOP grant budget narrative)	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$1,875,012	$0	$0	$28,125,185
In-Kind	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operations and Maintenance (includes Maintenance of HSS)	$7,606,815	$7,758,951	$7,914,130	$8,072,413	$8,233,861	$8,398,538	$8,566,509	$8,737,839	$119,676,415
Capital Replacement	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$3,452,733	$55,243,728
Administration	$1,543,291	$1,574,157	$1,605,640	$1,637,753	$1,670,508	$1,703,918	$1,737,996	$1,772,756	$25,842,728
LTE Total	$14,477,851	$14,660,853	$14,847,516	$15,037,911	$15,232,114	$15,430,202	$13,757,238	$13,963,328	
Total LMR+LTE	**$24,518,987**	**$24,679,506**	**$24,897,652**	**$25,120,160**	**$25,293,770**	**$25,525,268**	**$23,886,383**	**$24,127,233**	

Interest Rates	
Loan rate for hard match	5.00%
Investment rate for capital replacement sinking fund	0.625%
LTE O&M inflation (after 5th year)	2%
Administration	2%

Note: LMR and LTE O&M based on respective contracts. In funding model, annual O&M is averaged using straight line method.

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Annual Member Fees - Scenario 8, Excluding In-Kind Match and Adding HSS Additive Alt Maintenance

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
City of Agoura Hills	$0	$0	$0	$0	$0	$0	$0	$0
City of Alhambra	$21,706	$86,490	$156,472	$158,081	$161,473	$161,957	$163,307	$164,326
City of Arcadia	$17,034	$67,874	$124,910	$126,179	$128,824	$129,187	$130,253	$131,048
City of Artesia	$0	$0	$0	$0	$0	$0	$0	$0
City of Avalon	$507	$2,021	$3,879	$3,917	$3,995	$4,004	$4,036	$4,060
City of Azusa	$8,391	$33,435	$57,444	$58,058	$59,393	$59,604	$60,117	$60,518
City of Baldwin Park	$13,649	$54,386	$93,440	$94,439	$96,610	$96,953	$97,788	$98,441
City of Bell	$6,386	$25,445	$43,716	$44,183	$45,199	$45,359	$45,750	$46,055
City of Bell Gardens	$5,272	$21,008	$36,279	$36,665	$37,503	$37,633	$37,957	$38,208
City of Bellflower	$0	$0	$0	$0	$0	$0	$0	$0
City of Beverly Hills	$53,173	$211,874	$293,518	$297,223	$306,233	$308,114	$311,171	$313,882
City of Bradbury	$0	$0	$0	$0	$0	$0	$0	$0
City of Burbank	$46,764	$186,334	$365,007	$368,548	$375,638	$376,464	$379,453	$381,581
City of Calabasas	$0	$0	$0	$0	$0	$0	$0	$0
City of Carson	$1,166	$4,647	$8,439	$8,526	$8,708	$8,733	$8,806	$8,861
City of Cerritos	$0	$0	$0	$0	$0	$0	$0	$0
City of Claremont	$12,751	$50,809	$78,955	$79,866	$81,960	$82,344	$83,102	$83,731
City of Commerce	$10,143	$40,416	$56,062	$56,769	$58,487	$58,845	$59,429	$59,946
City of Compton	$6,511	$25,945	$50,078	$50,569	$51,562	$51,683	$52,097	$52,395
City of Covina	$3,460	$13,788	$54,516	$54,851	$55,161	$55,009	$55,307	$55,399
City of Culver City	$14,172	$56,468	$156,322	$157,516	$159,308	$159,204	$160,238	$160,774
City of Downey	$32,979	$131,408	$213,241	$215,621	$220,966	$221,891	$223,874	$225,481
City of Duarte	$3,803	$15,152	$20,726	$20,990	$21,637	$21,773	$21,991	$22,186
City of El Monte	$8,739	$34,823	$84,009	$84,713	$85,915	$85,947	$86,549	$86,910
City of El Segundo	$5,037	$20,069	$36,934	$37,310	$38,092	$38,199	$38,514	$38,749
City of Gardena	$23,363	$93,092	$169,149	$170,883	$174,529	$175,044	$176,500	$177,595
City of Glendale	$109,177	$435,027	$681,640	$689,455	$707,338	$710,589	$717,087	$722,464
City of Glendora	$9,065	$36,120	$62,056	$62,720	$64,162	$64,389	$64,944	$65,378
City of Hawaiian Gardens	$0	$0	$0	$0	$0	$0	$0	$0
City of Hawthorne	$15,308	$60,997	$104,797	$105,917	$108,353	$108,737	$109,674	$110,406
City of Hermosa Beach	$5,518	$21,989	$46,251	$46,677	$47,489	$47,562	$47,924	$48,167
City of Hidden Hills	$0	$0	$0	$0	$0	$0	$0	$0
City of Huntington Park	$12,018	$47,886	$83,206	$84,088	$85,993	$86,287	$87,025	$87,598
City of Industry	$0	$0	$0	$0	$0	$0	$0	$0
City of Inglewood	$3,415	$13,608	$79,213	$79,610	$79,718	$79,371	$79,737	$79,767
City of Irwindale	$255	$1,016	$1,745	$1,763	$1,804	$1,810	$1,826	$1,838
City of La Canada Flintridge	$207	$824	$956	$970	$1,006	$1,015	$1,026	$1,037
City of La Habra Heights	$359	$1,431	$2,520	$2,547	$2,603	$2,612	$2,634	$2,651
City of La Mirada	$0	$0	$0	$0	$0	$0	$0	$0
City of La Puente	$0	$0	$0	$0	$0	$0	$0	$0
City of La Verne	$1,943	$7,740	$32,029	$32,220	$32,383	$32,287	$32,458	$32,506
City of Lakewood	$0	$0	$0	$0	$0	$0	$0	$0
City of Lancaster	$0	$0	$0	$0	$0	$0	$0	$0
City of Lawndale	$0	$0	$0	$0	$0	$0	$0	$0
City of Long Beach	$120,795	$481,319	$1,161,424	$1,171,149	$1,187,757	$1,188,198	$1,196,531	$1,201,507
City of Los Angeles	$1,453,788	$5,792,759	$9,025,832	$9,129,770	$9,368,293	$9,411,970	$9,498,364	$9,570,079

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Annual Member Fees - Scenario 8, Excluding In-Kind Match and Adding HSS Additive Alt Maintenance

	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
City of Agoura Hills	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Alhambra	$165,373	$166,806	$167,910	$169,401	$170,922	$172,115	$173,698	$162,459	$164,105
City of Arcadia	$131,864	$132,995	$133,856	$135,033	$136,234	$137,166	$138,415	$129,602	$130,901
City of Artesia	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Avalon	$4,084	$4,118	$4,143	$4,179	$4,215	$4,242	$4,280	$4,018	$4,057
City of Azusa	$60,930	$61,475	$61,908	$62,476	$63,054	$63,521	$64,123	$59,768	$60,394
City of Baldwin Park	$99,110	$99,997	$100,702	$101,624	$102,565	$103,325	$104,304	$97,220	$98,239
City of Bell	$46,369	$46,784	$47,113	$47,545	$47,985	$48,341	$48,799	$45,484	$45,961
City of Bell Gardens	$38,466	$38,810	$39,081	$39,438	$39,802	$40,095	$40,474	$37,739	$38,133
City of Bellflower	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Beverly Hills	$316,654	$319,899	$322,800	$326,175	$329,618	$332,722	$336,304	$308,470	$312,197
City of Bradbury	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Burbank	$383,771	$386,942	$389,257	$392,557	$395,923	$398,436	$401,937	$377,817	$381,460
City of Calabasas	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Carson	$8,917	$8,994	$9,053	$9,134	$9,215	$9,279	$9,365	$8,761	$8,849
City of Cerritos	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Claremont	$84,376	$85,180	$85,857	$86,692	$87,545	$88,272	$89,159	$82,513	$83,436
City of Commerce	$60,474	$61,094	$61,647	$62,291	$62,948	$63,540	$64,223	$58,914	$59,625
City of Compton	$52,702	$53,141	$53,465	$53,922	$54,388	$54,740	$55,225	$51,864	$52,369
City of Covina	$55,497	$55,814	$55,924	$56,253	$56,589	$56,720	$57,069	$55,376	$55,740
City of Culver City	$161,331	$162,428	$163,029	$164,170	$165,335	$166,004	$167,215	$160,059	$161,319
City of Downey	$227,128	$229,233	$230,963	$233,153	$235,387	$237,249	$239,573	$222,415	$224,833
City of Duarte	$22,385	$22,616	$22,824	$23,064	$23,310	$23,532	$23,788	$21,796	$22,062
City of El Monte	$87,282	$87,922	$88,319	$88,985	$89,664	$90,102	$90,808	$86,353	$87,088
City of El Segundo	$38,991	$39,325	$39,580	$39,928	$40,283	$40,558	$40,928	$38,322	$38,706
City of Gardena	$178,719	$180,265	$181,450	$183,058	$184,698	$185,980	$187,686	$175,591	$177,366
City of Glendale	$727,973	$734,870	$740,652	$747,827	$755,146	$761,358	$768,973	$712,088	$720,010
City of Glendora	$65,822	$66,411	$66,879	$67,492	$68,117	$68,621	$69,272	$64,567	$65,243
City of Hawaiian Gardens	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Hawthorne	$111,157	$112,152	$112,942	$113,977	$115,032	$115,884	$116,982	$109,037	$110,179
City of Hermosa Beach	$48,418	$48,802	$49,068	$49,467	$49,875	$50,165	$50,588	$47,753	$48,193
City of Hidden Hills	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Huntington Park	$88,185	$88,969	$89,587	$90,402	$91,233	$91,901	$92,766	$86,532	$87,432
City of Industry	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Inglewood	$79,804	$80,192	$80,245	$80,649	$81,061	$81,138	$81,566	$79,981	$80,427
City of Irwindale	$1,851	$1,867	$1,880	$1,898	$1,915	$1,929	$1,948	$1,815	$1,834
City of La Canada Flintridge	$1,049	$1,061	$1,072	$1,085	$1,098	$1,110	$1,123	$1,015	$1,028
City of La Habra Heights	$2,668	$2,692	$2,710	$2,735	$2,760	$2,780	$2,806	$2,619	$2,646
City of La Mirada	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of La Puente	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of La Verne	$32,558	$32,740	$32,799	$32,988	$33,181	$33,252	$33,452	$32,507	$32,716
City of Lakewood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Lancaster	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Lawndale	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Long Beach	$1,206,653	$1,215,496	$1,220,993	$1,230,193	$1,239,578	$1,245,626	$1,255,390	$1,193,818	$1,203,976
City of Los Angeles	$9,643,556	$9,735,237	$9,812,346	$9,907,731	$10,005,023	$10,087,856	$10,189,079	$9,431,445	$9,536,758

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Annual Member Fees - Scenario 8, Excluding In-Kind Match and Adding HSS Additive Alt Maintenance

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
City of Lynwood	$0	$0	$0	$0	$0	$0	$0	$0
City of Manhattan Beach	$51,001	$203,219	$245,410	$248,868	$257,791	$259,876	$262,707	$265,393
City of Maywood	$0	$0	$0	$0	$0	$0	$0	$0
City of Monrovia	$20,219	$80,564	$130,491	$131,949	$135,228	$135,797	$137,012	$137,998
City of Montebello	$18,935	$75,449	$138,851	$140,261	$143,202	$143,606	$144,791	$145,674
City of Monterey Park	$9,734	$38,784	$62,478	$63,180	$64,761	$65,037	$65,621	$66,097
City of Norwalk	$0	$0	$0	$0	$0	$0	$0	$0
City of Palmdale	$0	$0	$0	$0	$0	$0	$0	$0
City of Palos Verdes Estates	$2,433	$9,694	$16,655	$16,833	$17,220	$17,281	$17,430	$17,546
City of Paramount	$0	$0	$0	$0	$0	$0	$0	$0
City of Pasadena	$18,446	$73,501	$233,385	$235,018	$237,117	$236,751	$238,180	$238,806
City of Pico Rivera	$0	$0	$0	$0	$0	$0	$0	$0
City of Pomona	$98,680	$393,201	$478,901	$485,603	$502,837	$506,838	$512,327	$517,514
City of Ranchos Palos Verdes	$0	$0	$0	$0	$0	$0	$0	$0
City of Redondo Beach	$12,859	$51,236	$130,779	$131,833	$133,545	$133,537	$134,444	$134,956
City of Rolling Hills Estates	$0	$0	$0	$0	$0	$0	$0	$0
City of Rosemead	$0	$0	$0	$0	$0	$0	$0	$0
City of San Dimas	$0	$0	$0	$0	$0	$0	$0	$0
City of San Fernando	$4,275	$17,035	$29,268	$29,581	$30,261	$30,368	$30,630	$30,834
City of San Gabriel	$24,903	$99,230	$167,248	$169,062	$173,049	$173,699	$175,215	$176,413
City of San Marino	$7,521	$29,969	$46,896	$47,434	$48,667	$48,891	$49,338	$49,709
City of Santa Clarita	$26,848	$106,978	$124,551	$126,359	$131,093	$132,226	$133,703	$135,128
City of Santa Fe Springs	$4,110	$16,378	$41,348	$41,684	$42,235	$42,236	$42,524	$42,689
City of Santa Monica	$17,233	$68,668	$285,919	$287,624	$289,055	$288,187	$289,713	$290,136
City of Sierra Madre	$3,303	$13,159	$24,217	$24,463	$24,976	$25,047	$25,253	$25,407
City of Signal Hill	$2,755	$10,977	$21,651	$21,860	$22,277	$22,324	$22,501	$22,626
City of South El Monte	$0	$0	$1,069	$1,072	$1,064	$1,055	$1,058	$1,056
City of South Gate	$19,453	$77,511	$123,022	$124,418	$127,593	$128,159	$129,322	$130,276
City of South Pasadena	$7,749	$30,878	$56,827	$57,404	$58,607	$58,772	$59,257	$59,619
City of Temple City	$0	$0	$0	$0	$0	$0	$0	$0
City of Torrance	$17,845	$71,107	$275,828	$277,540	$279,180	$278,438	$279,961	$280,448
City of Vernon	$7,244	$28,864	$54,587	$55,131	$56,244	$56,387	$56,845	$57,179
City of Walnut	$0	$0	$0	$0	$0	$0	$0	$0
City of West Covina	$32,146	$128,091	$235,729	$238,123	$243,115	$243,801	$245,813	$247,312
City of Westlake Village	$0	$0	$0	$0	$0	$0	$0	$0
City of Whittier	$10,084	$40,179	$83,113	$83,888	$85,382	$85,526	$86,183	$86,632
County of Los Angeles	$673,636	$2,684,169	$6,133,123	$6,186,443	$6,281,744	$6,286,866	$6,332,372	$6,360,945
Inglewood Unified School District	$1,687	$6,724	$11,552	$11,676	$11,944	$11,986	$12,090	$12,170
Los Angeles Unified School District	$42,598	$169,734	$368,709	$372,030	$378,206	$378,678	$381,502	$383,354
UCLA	$3,816	$15,204	$107,251	$107,744	$107,718	$107,186	$107,647	$107,636
Total	$3,166,369	$12,616,702	$23,013,624	$23,248,874	$23,742,200	$23,811,330	$24,008,911	$24,157,097

LA-RICS
Cash Flow Estimates
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Annual Member Fees - Scenario 8, Excluding In-Kind Match and Adding HSS Additive Alt Maintenance

	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
City of Lynwood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Manhattan Beach	$268,136	$271,140	$274,003	$277,129	$280,317	$283,367	$286,684	$259,866	$263,317
City of Maywood	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Monrovia	$139,008	$140,298	$141,360	$142,702	$144,070	$145,212	$146,636	$136,116	$137,598
City of Montebello	$146,581	$147,839	$148,796	$150,104	$151,439	$152,474	$153,863	$144,066	$145,511
City of Monterey Park	$66,584	$67,204	$67,715	$68,360	$69,018	$69,569	$70,253	$65,187	$65,900
City of Norwalk	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Palmdale	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Palos Verdes Estates	$17,666	$17,824	$17,949	$18,114	$18,281	$18,417	$18,591	$17,329	$17,510
City of Paramount	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Pasadena	$239,462	$240,979	$241,694	$243,273	$244,883	$245,693	$247,368	$238,154	$239,897
City of Pico Rivera	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Pomona	$522,813	$528,638	$534,168	$540,228	$546,410	$552,303	$558,734	$506,859	$513,550
City of Ranchos Palos Verdes	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Redondo Beach	$135,488	$136,450	$137,019	$138,021	$139,043	$139,672	$140,735	$134,204	$135,310
City of Rolling Hills Estates	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Rosemead	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of San Dimas	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of San Fernando	$31,044	$31,322	$31,543	$31,831	$32,126	$32,364	$32,671	$30,452	$30,771
City of San Gabriel	$177,642	$179,250	$180,543	$182,216	$183,923	$185,316	$187,092	$174,156	$176,003
City of San Marino	$50,089	$50,564	$50,962	$51,456	$51,960	$52,388	$52,913	$48,994	$49,539
City of Santa Clarita	$136,583	$138,151	$139,668	$141,299	$142,963	$144,578	$146,309	$132,176	$133,977
City of Santa Fe Springs	$42,860	$43,167	$43,350	$43,668	$43,993	$44,195	$44,534	$42,445	$42,797
City of Santa Monica	$290,590	$292,209	$292,728	$294,413	$296,131	$296,751	$298,539	$290,158	$292,018
City of Sierra Madre	$25,565	$25,785	$25,952	$26,180	$26,413	$26,593	$26,836	$25,127	$25,379
City of Signal Hill	$22,755	$22,942	$23,078	$23,273	$23,472	$23,619	$23,826	$22,406	$22,621
City of South El Monte	$1,053	$1,056	$1,054	$1,057	$1,061	$1,059	$1,062	$1,066	$1,069
City of South Gate	$131,254	$132,487	$133,514	$134,797	$136,106	$137,210	$138,572	$128,442	$129,859
City of South Pasadena	$59,990	$60,505	$60,897	$61,432	$61,978	$62,402	$62,970	$58,961	$59,552
City of Temple City	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Torrance	$280,965	$282,582	$283,163	$284,845	$286,561	$287,244	$289,029	$280,282	$282,139
City of Vernon	$57,523	$58,008	$58,371	$58,876	$59,392	$59,785	$60,321	$56,578	$57,136
City of Walnut	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of West Covina	$248,852	$250,987	$252,612	$254,834	$257,099	$258,858	$261,215	$244,583	$247,035
City of Westlake Village	$0	$0	$0	$0	$0	$0	$0	$0	$0
City of Whittier	$87,093	$87,790	$88,280	$89,005	$89,745	$90,278	$91,047	$85,861	$86,662
County of Los Angeles	$6,390,445	$6,438,737	$6,470,150	$6,520,393	$6,571,640	$6,606,068	$6,659,386	$6,314,866	$6,370,338
Inglewood Unified School District	$12,253	$12,363	$12,450	$12,564	$12,680	$12,774	$12,895	$12,020	$12,145
Los Angeles Unified School District	$385,264	$388,261	$390,290	$393,407	$396,588	$398,803	$402,112	$380,262	$383,705
UCLA	$107,634	$108,123	$108,141	$108,650	$109,169	$109,217	$109,758	$108,050	$108,612
Total	$24,309,312	$24,518,987	$24,679,506	$24,897,652	$25,120,160	$25,293,770	$25,525,268	$23,886,383	$24,127,233

LA-RICS
LTE Scenario 12
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Member Agency	LTE Cost Factor	Scenario 1: Baseline Funding Plan (LTE)	Scenario 12 - Excluding In Kind and Capital Replacement, Adding HHS and Redundant Evolved Packet Core Maintenance
City of Agoura Hills	0.00%	$0	$0
City of Alhambra	0.69%	$102,588	$71,017
City of Arcadia	0.54%	$80,507	$55,731
City of Artesia	0.00%	$0	$0
City of Avalon	0.02%	$2,397	$1,659
City of Azusa	0.27%	$39,658	$27,453
City of Baldwin Park	0.43%	$64,509	$44,656
City of Bell	0.20%	$30,180	$20,892
City of Bell Gardens	0.17%	$24,918	$17,249
City of Bellflower	0.00%	$0	$0
City of Beverly Hills	1.68%	$251,309	$173,968
City of Bradbury	0.00%	$0	$0
City of Burbank	1.48%	$221,015	$152,998
City of Calabasas	0.00%	$0	$0
City of Carson	0.04%	$5,512	$3,816
City of Cerritos	0.00%	$0	$0
City of Claremont	0.40%	$60,266	$41,719
City of Commerce	0.32%	$47,938	$33,185
City of Compton	0.21%	$30,774	$21,303
City of Covina	0.11%	$16,355	$11,322
City of Culver City	0.45%	$66,978	$46,366
City of Downey	1.04%	$155,866	$107,898
City of Duarte	0.12%	$17,972	$12,441
City of El Monte	0.28%	$41,305	$28,593
City of El Segundo	0.16%	$23,805	$16,479
City of Gardena	0.74%	$110,419	$76,438
City of Glendale	3.45%	$515,996	$357,198
City of Glendora	0.29%	$42,842	$29,658
City of Hawaiian Gardens	0.00%	$0	$0
City of Hawthorne	0.48%	$72,350	$50,084
City of Hermosa Beach	0.17%	$26,081	$18,055
City of Hidden Hills	0.00%	$0	$0
City of Huntington Park	0.38%	$56,798	$39,319
City of Industry	0.00%	$0	$0
City of Inglewood	0.11%	$16,141	$11,174
City of Irwindale	0.01%	$1,205	$834
City of La Canada Flintridge	0.01%	$977	$676
City of La Habra Heights	0.01%	$1,697	$1,175
City of La Mirada	0.00%	$0	$0
City of La Puente	0.00%	$0	$0
City of La Verne	0.06%	$9,181	$6,356
City of Lakewood	0.00%	$0	$0
City of Lancaster	0.00%	$0	$0
City of Lawndale	0.00%	$0	$0

LA-RICS
LTE Scenario 12
March 2014

Member Agency	LTE Cost Factor	Scenario 1: Baseline Funding Plan (LTE)	Scenario 12 - Excluding In Kind and Capital Replacement, Adding HHS and Redundant Evolved Packet Core Maintenance
City of Long Beach	3.81%	$570,904	$395,208
City of Los Angeles	45.91%	$6,870,935	$4,756,401
City of Lynwood	0.00%	$0	$0
City of Manhattan Beach	1.61%	$241,043	$166,862
City of Maywood	0.00%	$0	$0
City of Monrovia	0.64%	$95,560	$66,151
City of Montebello	0.60%	$89,492	$61,951
City of Monterey Park	0.31%	$46,003	$31,846
City of Norwalk	0.00%	$0	$0
City of Palmdale	0.00%	$0	$0
City of Palos Verdes Estates	0.08%	$11,498	$7,960
City of Paramount	0.00%	$0	$0
City of Pasadena	0.58%	$87,181	$60,351
City of Pico Rivera	0.00%	$0	$0
City of Pomona	3.12%	$466,386	$322,855
City of Ranchos Palos Verdes	0.00%	$0	$0
City of Redondo Beach	0.41%	$60,772	$42,070
City of Rolling Hills Estates	0.00%	$0	$0
City of Rosemead	0.00%	$0	$0
City of San Dimas	0.00%	$0	$0
City of San Fernando	0.14%	$20,206	$13,988
City of San Gabriel	0.79%	$117,699	$81,477
City of San Marino	0.24%	$35,547	$24,607
City of Santa Clarita	0.85%	$126,889	$87,839
City of Santa Fe Springs	0.13%	$19,426	$13,448
City of Santa Monica	0.54%	$81,449	$56,383
City of Sierra Madre	0.10%	$15,608	$10,805
City of Signal Hill	0.09%	$13,020	$9,013
City of South El Monte	0.00%	$0	$0
City of South Gate	0.61%	$91,937	$63,644
City of South Pasadena	0.24%	$36,626	$25,354
City of Temple City	0.00%	$0	$0
City of Torrance	0.56%	$84,342	$58,386
City of Vernon	0.23%	$34,236	$23,700
City of Walnut	0.00%	$0	$0
City of West Covina	1.02%	$151,932	$105,175
City of Westlake Village	0.00%	$0	$0
City of Whittier	0.32%	$47,658	$32,991
County of Los Angeles	21.27%	$3,183,759	$2,203,955
Inglewood Unified School District	0.05%	$7,975	$5,521
Los Angeles Unified School District	1.35%	$201,326	$139,368
UCLA	0.12%	$18,034	$12,484
Total	100.00%	$14,964,984	$10,359,502

LA-RICS
LTE Scenario 12
March 2014

Member Agency	LTE Cost Factor	Scenario 1: Baseline Funding Plan (LTE)						Scenario 12 - Excluding In Kind and Capital Replacement, Adding HHS and Redundant Evolved Packet Core			
		Hard Match	In-Kind Match	O&M	Capital Replacement	Administrative Costs	**Total LTE Cost**	Hard Match	O&M	Administrative Costs	**Total LTE Cost**
City of Agoura Hills	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Alhambra	0.69%	$12,854	$12,832	$44,380	$23,669	$8,853	**$102,588**	$12,854	$49,310	$8,853	**$71,017**
City of Arcadia	0.54%	$10,087	$10,070	$34,828	$18,575	$6,947	**$80,507**	$10,087	$38,697	$6,947	**$55,731**
City of Artesia	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Avalon	0.02%	$300	$300	$1,037	$553	$207	**$2,397**	$300	$1,152	$207	**$1,659**
City of Azusa	0.27%	$4,969	$4,961	$17,156	$9,150	$3,422	**$39,658**	$4,969	$19,062	$3,422	**$27,453**
City of Baldwin Park	0.43%	$8,083	$8,069	$27,907	$14,884	$5,567	**$64,509**	$8,083	$31,007	$5,567	**$44,656**
City of Bell	0.20%	$3,781	$3,775	$13,056	$6,963	$2,604	**$30,180**	$3,781	$14,507	$2,604	**$20,892**
City of Bell Gardens	0.17%	$3,122	$3,117	$10,780	$5,749	$2,150	**$24,918**	$3,122	$11,977	$2,150	**$17,249**
City of Bellflower	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Beverly Hills	1.68%	$31,487	$31,435	$108,718	$57,982	$21,686	**$251,309**	$31,487	$120,795	$21,686	**$173,968**
City of Bradbury	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Burbank	1.48%	$27,692	$27,646	$95,613	$50,993	$19,072	**$221,015**	$27,692	$106,234	$19,072	**$152,998**
City of Calabasas	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Carson	0.04%	$691	$689	$2,385	$1,272	$476	**$5,512**	$691	$2,649	$476	**$3,816**
City of Cerritos	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Claremont	0.40%	$7,551	$7,539	$26,072	$13,905	$5,200	**$60,266**	$7,551	$28,968	$5,200	**$41,719**
City of Commerce	0.32%	$6,006	$5,996	$20,738	$11,060	$4,137	**$47,938**	$6,006	$23,042	$4,137	**$33,185**
City of Compton	0.21%	$3,856	$3,849	$13,313	$7,100	$2,656	**$30,774**	$3,856	$14,792	$2,656	**$21,303**
City of Covina	0.11%	$2,049	$2,046	$7,075	$3,773	$1,411	**$16,355**	$2,049	$7,861	$1,411	**$11,322**
City of Culver City	0.45%	$8,392	$8,378	$28,975	$15,453	$5,780	**$66,978**	$8,392	$32,194	$5,780	**$46,366**
City of Downey	1.04%	$19,529	$19,497	$67,429	$35,962	$13,450	**$155,866**	$19,529	$74,919	$13,450	**$107,898**
City of Duarte	0.12%	$2,252	$2,248	$7,775	$4,147	$1,551	**$17,972**	$2,252	$8,639	$1,551	**$12,441**
City of El Monte	0.28%	$5,175	$5,167	$17,869	$9,530	$3,564	**$41,305**	$5,175	$19,854	$3,564	**$28,593**
City of El Segundo	0.16%	$2,983	$2,978	$10,298	$5,492	$2,054	**$23,805**	$2,983	$11,442	$2,054	**$16,479**
City of Gardena	0.74%	$13,835	$13,812	$47,768	$25,476	$9,528	**$110,419**	$13,835	$53,075	$9,528	**$76,438**
City of Glendale	3.45%	$64,651	$64,544	$223,224	$119,051	$44,526	**$515,996**	$64,651	$248,021	$44,526	**$357,198**
City of Glendora	0.29%	$5,368	$5,359	$18,534	$9,885	$3,697	**$42,842**	$5,368	$20,593	$3,697	**$29,658**
City of Hawaiian Gardens	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Hawthorne	0.48%	$9,065	$9,050	$31,299	$16,693	$6,243	**$72,350**	$9,065	$34,776	$6,243	**$50,084**
City of Hermosa Beach	0.17%	$3,268	$3,262	$11,283	$6,018	$2,251	**$26,081**	$3,268	$12,536	$2,251	**$18,055**
City of Hidden Hills	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Huntington Park	0.38%	$7,116	$7,105	$24,571	$13,105	$4,901	**$56,798**	$7,116	$27,301	$4,901	**$39,319**
City of Industry	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Inglewood	0.11%	$2,022	$2,019	$6,983	$3,724	$1,393	**$16,141**	$2,022	$7,759	$1,393	**$11,174**
City of Irwindale	0.01%	$151	$151	$521	$278	$104	**$1,205**	$151	$579	$104	**$834**
City of La Canada Flintridge	0.01%	$122	$122	$423	$225	$84	**$977**	$122	$470	$84	**$676**
City of La Habra Heights	0.01%	$213	$212	$734	$392	$146	**$1,697**	$213	$816	$146	**$1,175**
City of La Mirada	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of La Puente	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of La Verne	0.06%	$1,150	$1,148	$3,972	$2,118	$792	**$9,181**	$1,150	$4,413	$792	**$6,356**
City of Lakewood	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Lancaster	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Lawndale	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**

LA-RICS
LTE Scenario 12
March 2014

Member Agency	LTE Cost Factor	Scenario 1: Baseline Funding Plan (LTE)						Scenario 12 - Excluding In Kind and Capital Replacement, Adding HHS and Redundant Evolved Packet Core			
		Hard Match	In-Kind Match	O&M	Capital Replacement	Administrative Costs	**Total LTE Cost**	Hard Match	O&M	Administrative Costs	**Total LTE Cost**
City of Long Beach	3.81%	$71,530	$71,413	$246,977	$131,719	$49,264	**$570,904**	$71,530	$274,413	$49,264	**$395,208**
City of Los Angeles	45.91%	$860,882	$859,464	$2,972,415	$1,585,268	$592,906	**$6,870,935**	$860,882	$3,302,613	$592,906	**$4,756,401**
City of Lynwood	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Manhattan Beach	1.61%	$30,201	$30,151	$104,277	$55,614	$20,800	**$241,043**	$30,201	$115,861	$20,800	**$166,862**
City of Maywood	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Monrovia	0.64%	$11,973	$11,953	$41,340	$22,048	$8,246	**$95,560**	$11,973	$45,932	$8,246	**$66,151**
City of Montebello	0.60%	$11,213	$11,194	$38,715	$20,648	$7,722	**$89,492**	$11,213	$43,016	$7,722	**$61,951**
City of Monterey Park	0.31%	$5,764	$5,754	$19,901	$10,614	$3,970	**$46,003**	$5,764	$22,112	$3,970	**$31,846**
City of Norwalk	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Palmdale	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Palos Verdes Estates	0.08%	$1,441	$1,438	$4,974	$2,653	$992	**$11,498**	$1,441	$5,527	$992	**$7,960**
City of Paramount	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Pasadena	0.58%	$10,923	$10,905	$37,715	$20,114	$7,523	**$87,181**	$10,923	$41,905	$7,523	**$60,351**
City of Pico Rivera	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Pomona	3.12%	$58,435	$58,339	$201,762	$107,605	$40,245	**$466,386**	$58,435	$224,175	$40,245	**$322,855**
City of Ranchos Palos Verdes	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Redondo Beach	0.41%	$7,614	$7,602	$26,290	$14,021	$5,244	**$60,772**	$7,614	$29,211	$5,244	**$42,070**
City of Rolling Hills Estates	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Rosemead	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of San Dimas	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of San Fernando	0.14%	$2,532	$2,527	$8,741	$4,662	$1,744	**$20,206**	$2,532	$9,712	$1,744	**$13,988**
City of San Gabriel	0.79%	$14,747	$14,723	$50,917	$27,156	$10,156	**$117,699**	$14,747	$56,574	$10,156	**$81,477**
City of San Marino	0.24%	$4,454	$4,446	$15,378	$8,201	$3,067	**$35,547**	$4,454	$17,086	$3,067	**$24,607**
City of Santa Clarita	0.85%	$15,898	$15,872	$54,893	$29,276	$10,950	**$126,889**	$15,898	$60,991	$10,950	**$87,839**
City of Santa Fe Springs	0.13%	$2,434	$2,430	$8,404	$4,482	$1,676	**$19,426**	$2,434	$9,337	$1,676	**$13,448**
City of Santa Monica	0.54%	$10,205	$10,188	$35,236	$18,792	$7,028	**$81,449**	$10,205	$39,150	$7,028	**$56,383**
City of Sierra Madre	0.10%	$1,956	$1,952	$6,752	$3,601	$1,347	**$15,608**	$1,956	$7,502	$1,347	**$10,805**
City of Signal Hill	0.09%	$1,631	$1,629	$5,633	$3,004	$1,124	**$13,020**	$1,631	$6,258	$1,124	**$9,013**
City of South El Monte	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of South Gate	0.61%	$11,519	$11,500	$39,773	$21,212	$7,933	**$91,937**	$11,519	$44,191	$7,933	**$63,644**
City of South Pasadena	0.24%	$4,589	$4,581	$15,845	$8,450	$3,161	**$36,626**	$4,589	$17,605	$3,161	**$25,354**
City of Temple City	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Torrance	0.56%	$10,567	$10,550	$36,487	$19,459	$7,278	**$84,342**	$10,567	$40,540	$7,278	**$58,386**
City of Vernon	0.23%	$4,290	$4,282	$14,811	$7,899	$2,954	**$34,236**	$4,290	$16,456	$2,954	**$23,700**
City of Walnut	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of West Covina	1.02%	$19,036	$19,005	$65,727	$35,054	$13,110	**$151,932**	$19,036	$73,028	$13,110	**$105,175**
City of Westlake Village	0.00%	$0	$0	$0	$0	$0	**$0**	$0	$0	$0	**$0**
City of Whittier	0.32%	$5,971	$5,961	$20,617	$10,996	$4,112	**$47,658**	$5,971	$22,907	$4,112	**$32,991**
County of Los Angeles	21.27%	$398,904	$398,247	$1,377,317	$734,559	$274,733	**$3,183,759**	$398,904	$1,530,319	$274,733	**$2,203,955**
Inglewood Unified School District	0.05%	$999	$998	$3,450	$1,840	$688	**$7,975**	$999	$3,833	$688	**$5,521**
Los Angeles Unified School District	1.35%	$25,225	$25,183	$87,095	$46,450	$17,373	**$201,326**	$25,225	$96,770	$17,373	**$139,368**
UCLA	0.12%	$2,260	$2,256	$7,802	$4,161	$1,556	**$18,034**	$2,260	$8,668	$1,556	**$12,484**
Total	100.00%	$1,875,012	$1,871,924	$6,473,958	$3,452,733	$1,291,357	**$14,964,984**	$1,875,012	$7,193,133	$1,291,357	**$10,359,502**

LA-RICS

BUY IN COST FOR LATE ADOPTERS – DESCRIPTION, FORMULA, AND EXAMPLES

MARCH 2014

PREPARED BY: PMC®

Excerpt from Funding Plan

Buy-in Cost for Late Adopters

The Funding Plan is predicated on the assumption of full participation of every member of the Authority. That is, the member shares will be calculated assuming every potential member is paying its indicated annual share. However, this scenario is not likely to occur in the initial years as some members will exercise their right to withdraw as allowed under the Authority agreement. An agency may make a financial decision to delay participation until such time as their communication system equipment completes its normal replacement cycle and thus the agency's capital investment is fully amortized.

For every member that chooses not to participate, its annual share of the cost must be assumed by the Authority should total system costs be higher than the revenues collected from early participating members. In this instance, bridge financing may be required to make up the difference. Alternatively, early participating members would have to absorb the costs of non-participants resulting in a higher cost for the early members.

Each year a member does not join LA-RICS, its allocated but unpaid cost share of the LTE hard match and both LMR and LTE capital replacement will accumulate. The allocated share of a member's hard match could be based on a simple measure such as population while capital replacement is based on the cost allocation formula. The opportunity for a member to buy in later into the program will involve paying its accumulated unpaid member share with interest, assuming the Authority or a member agency incurs carrying cost of loans or funds for advanced funding to pay the LMR and LTE agreements. Another potential form of this would be if the early members pay both their cost shares as well as the cost for late adopters, the late adopters at the time of their buy-in would pay an amount above their annual cost share to reimburse the early members.

To hold their place in LA-RICS prior to joining, a pro-rata amount of the member's share of the hard match and capital replacement may be assessed annually to help offset the early costs of the system. This will help ensure that all potential members continue to contribute to LA-RICS as their existing systems become obsolete and the member joins at a later time.

Some Members may have special radio or broadband coverage challenges (e.g., hilly terrain or clusters of tall buildings) that the standard backbone systems would be unable to meet. Those Members may require additional sites or facilities for an acceptable level of service. If so, those members, and not LA-RICS, would be responsible for the costs of building and maintaining these facilities. (Note that this does not preclude LA-RICS from being the agency that does the actual work of constructing or maintaining these facilities.)

Buy in assumptions and calculation examples:

LMR

Capacity charge is one-time fee and amount is based on the year joined and the member's O&M cost share. Member pays that year's amount, not cumulative from prior years. The fee progressively increases each year. Capacity charge is above a member's annual costs.

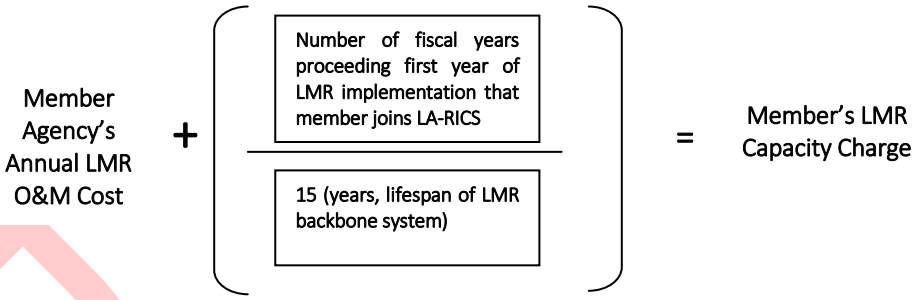
Rationale: LMR has capacity for all members from Day 1, each member receives capacity in the system whether used or not by the member. When not used, early adopters are paying for it. Progressive fee recoups a portion of the amount paid by early adopters and provides urgency measure to join.

LTE

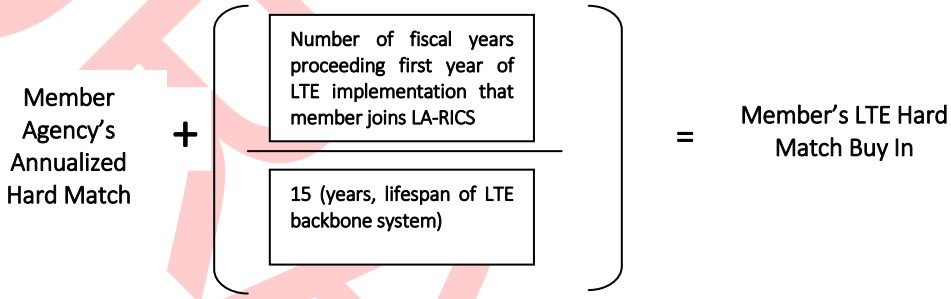
Upon joining, member pays their hard match to catch up and a capacity fee. The hard match amount is the cumulative hard match from year 1. For example, if city joins in year 5, they must pay hard match for years 1 - 5 ($71,500 x 5). In addition, the Buy-in is one-time fee and amount is based on the year joined and the member's hard match share. Member pays that year's amount, not cumulative from prior years. The fee progressively increases each year. Buy-in fee is above a member's annual costs.

Rationale: If all members do not join LA-RICS, there will be a funding gap in the hard match requirement. Late adopters pay the buy-in fee to help offset this cost of those who do not join. The capacity fee is a progressive fee that recoups a portion of the amount paid by early adopters and provides urgency measure to join.

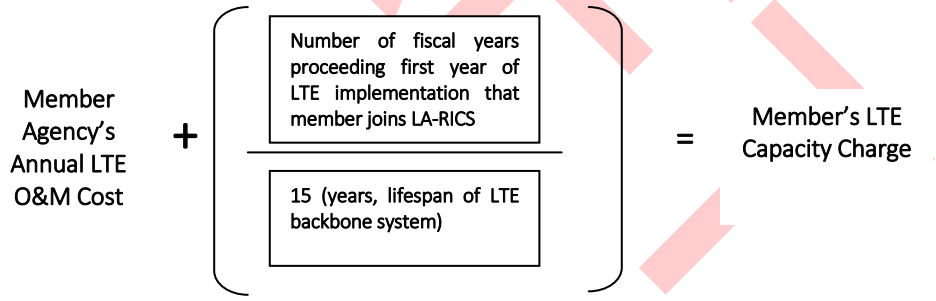
Formula for LMR Capacity Charge (One Time Buy-In)



Formula for LTE Hard Match One Time Buy-In



Formula for LTE Capacity Charge (One Time Buy-In)



City of Burbank
LMR O & M

LMR Capacity Charge - One time buy in

Year	O&M Cost Share	Charge: 1/15th of O&M cost per year that increases by 1/15 annually		
		Rate Schedule		**Charge**
1	$64,400	1/15	7%	$4,293
2	$64,400	2/15	13%	$8,587
3	$64,400	3/15	20%	$12,880
4	$64,400	4/15	27%	$17,173
5	$64,400	5/15	33%	$21,467
6	$64,400	6/15	40%	$25,760
7	$64,400	7/15	47%	$30,053
8	$64,400	8/15	53%	$34,347
9	$64,400	9/15	60%	$38,640
10	$64,400	10/15	67%	$42,933
11	$64,400	11/15	73%	$47,227
12	$64,400	12/15	80%	$51,520
13	$64,400	13/15	87%	$55,813
14	$64,400	14/15	93%	$60,107
15	$64,400	15/15	100%	$64,400

Capacity charge is one time fee and amount is based on the year joined and the member's O&M cost share. Member pays that year's amount, not cumulative from prior years. Fee progressively increases each year. Capacity charge is above a member's annual costs.

Rationale: LMR has capacity for all members from Day 1, each member receives capacity in the system whether used or not by the member. When not used, early adopters are paying for it. Progressive fee recoups a portion of the amount paid by early adopters and provides urgency measure to join.

City of Burbank
LTE Capital Hard Match

LTE Buy in Fee and Capacity Charge- One time buy in

Year	Annualized Hard Match Share, includes 5% interest	Fee: 1/15th of hard match per year that increases by 1/15 annually			Charge: 1/15th of O&M cost per year that increases by 1/15 annually			
		Rate Schedule		**Fee**		**Rate Schedule**		**Charge**
1	$27,700	1/15	7%	$1,847	$95,600	1/15	7%	$6,373
2	$27,700	2/15	13%	$3,693	$95,600	2/15	13%	$12,747
3	$27,700	3/15	20%	$5,540	$95,600	3/15	20%	$19,120
4	$27,700	4/15	27%	$7,387	$95,600	4/15	27%	$25,493
5	$27,700	5/15	33%	$9,233	$95,600	5/15	33%	$31,867
6	$27,700	6/15	40%	$11,080	$95,600	6/15	40%	$38,240
7	$27,700	7/15	47%	$12,927	$95,600	7/15	47%	$44,613
8	$27,700	8/15	53%	$14,773	$95,600	8/15	53%	$50,987
9	$27,700	9/15	60%	$16,620	$95,600	9/15	60%	$57,360
10	$27,700	10/15	67%	$18,467	$95,600	10/15	67%	$63,733
11	$27,700	11/15	73%	$20,313	$95,600	11/15	73%	$70,107
12	$27,700	12/15	80%	$22,160	$95,600	12/15	80%	$76,480
13	$27,700	13/15	87%	$24,007	$95,600	13/15	87%	$82,853
14	$27,700	14/15	93%	$25,853	$95,600	14/15	93%	$89,227
15	$27,700	15/15	100%	$27,700	$95,600	15/15	100%	$95,600

Upon joining, member pays their hard match to catch up. The amount is the cumulative hard match from year 1. For example, if city joins in year 5, they must pay hard match for years 1 - 5 ($27,700 x 5). In addition, the Buy-in is one time fee and amount is based on the year joined and the member's hard match share. Member pays that year's amount, not cumulative from prior years. Fee progressively increases each year. Buy-in fee is above a member's annual costs.

Rationale: If all members do not join LA-RICS, there will be a funding gap in the hard match requirement. Late adopters pay the buy-in fee to help offset this cost of those who do not join. Progressive fee recoups a portion of the amount paid by early adopters and provides urgency measure to join. Similarly, LTE has capacity for all members from Day 1, each member receives capacity in the system whether used or not by the member. When not used, early adopters are paying for it. Progressive fee recoups a portion of the amount paid by early adopters and provides urgency measure to join.

City of Long Beach
LMR O & M

LMR Capacity Charge - One time buy in

Year	O&M Cost Share	Charge: 1/15th of O&M cost per year that increases by 1/15 annually		
		Rate Schedule		**Charge**
1	$227,100	1/15	7%	$15,140
2	$227,100	2/15	13%	$30,280
3	$227,100	3/15	20%	$45,420
4	$227,100	4/15	27%	$60,560
5	$227,100	5/15	33%	$75,700
6	$227,100	6/15	40%	$90,840
7	$227,100	7/15	47%	$105,980
8	$227,100	8/15	53%	$121,120
9	$227,100	9/15	60%	$136,260
10	$227,100	10/15	67%	$151,400
11	$227,100	11/15	73%	$166,540
12	$227,100	12/15	80%	$181,680
13	$227,100	13/15	87%	$196,820
14	$227,100	14/15	93%	$211,960
15	$227,100	15/15	100%	$227,100

Capacity charge is one time fee and amount is based on the year joined and the member's O&M cost share. Member pays that year's amount, not cumulative from prior years. Fee progressively increases each year. Capacity charge is above a member's annual costs.

Rationale: LMR has capacity for all members from Day 1, each member receives capacity in the system whether used or not by the member. When not used, early adopters are paying for it. Progressive fee recoups a portion of the amount paid by early adopters and provides urgency measure to join.

City of Long Beach
LTE Capital Hard Match

LTE Buy in Fee - One time buy in

Year	Annualized Hard Match Share, includes 5% interest	Fee: 1/15th of hard match per year that increases by 1/15 annually			Charge: 1/15th of O&M cost per year that increases by 1/15 annually			
		Rate Schedule		**Fee**		**Rate Schedule**		**Fee**
1	$71,500	1/15	7%	$4,767	$247,000	1/15	7%	$16,467
2	$71,500	2/15	13%	$9,533	$247,000	2/15	13%	$32,933
3	$71,500	3/15	20%	$14,300	$247,000	3/15	20%	$49,400
4	$71,500	4/15	27%	$19,067	$247,000	4/15	27%	$65,867
5	$71,500	5/15	33%	$23,833	$247,000	5/15	33%	$82,333
6	$71,500	6/15	40%	$28,600	$247,000	6/15	40%	$98,800
7	$71,500	7/15	47%	$33,367	$247,000	7/15	47%	$115,267
8	$71,500	8/15	53%	$38,133	$247,000	8/15	53%	$131,733
9	$71,500	9/15	60%	$42,900	$247,000	9/15	60%	$148,200
10	$71,500	10/15	67%	$47,667	$247,000	10/15	67%	$164,667
11	$71,500	11/15	73%	$52,433	$247,000	11/15	73%	$181,133
12	$71,500	12/15	80%	$57,200	$247,000	12/15	80%	$197,600
13	$71,500	13/15	87%	$61,967	$247,000	13/15	87%	$214,067
14	$71,500	14/15	93%	$66,733	$247,000	14/15	93%	$230,533
15	$71,500	15/15	100%	$71,500	$247,000	15/15	100%	$247,000

Upon joining, member pays their hard match to catch up. The amount is the cumulative hard match from year 1. For example, if city joins in year 5, they must pay hard match for years 1 - 5 ($27,700 x 5). In addition, the Buy-in is one time fee and amount is based on the year joined and the member's hard match share. Member pays that year's amount, not cumulative from prior years. Fee progressively increases each year. Buy-in fee is above a member's annual costs.

Rationale: If all members do not join LA-RICS, there will be a funding gap in the hard match requirement. Late adopters pay the buy-in fee to help offset this cost of those who do not join. Progressive fee recoups a portion of the amount paid by early adopters and provides urgency measure to join. Similarly, LTE has capacity for all members from Day 1, each member receives capacity in the system whether used or not by the member. When not used, early adopters are paying for it. Progressive fee recoups a portion of the amount paid by early adopters and provides urgency measure to join.

City of Redondo Beach
LMR O & M

LMR Capacity Charge - One time buy in

Year	O&M Cost Share	Charge: 1/15th of O&M cost per year that increases by 1/15 annually		
		Rate Schedule		**Charge**
1	$26,900	1/15	7%	$1,793
2	$26,900	2/15	13%	$3,587
3	$26,900	3/15	20%	$5,380
4	$26,900	4/15	27%	$7,173
5	$26,900	5/15	33%	$8,967
6	$26,900	6/15	40%	$10,760
7	$26,900	7/15	47%	$12,553
8	$26,900	8/15	53%	$14,347
9	$26,900	9/15	60%	$16,140
10	$26,900	10/15	67%	$17,933
11	$26,900	11/15	73%	$19,727
12	$26,900	12/15	80%	$21,520
13	$26,900	13/15	87%	$23,313
14	$26,900	14/15	93%	$25,107
15	$26,900	15/15	100%	$26,900

Capacity charge is one time fee and amount is based on the year joined and the member's O&M cost share. Member pays that year's amount, not cumulative from prior years. Fee progressively increases each year. Capacity charge is above a member's annual costs.

Rationale: LMR has capacity for all members from Day 1, each member receives capacity in the system whether used or not by the member. When not used, early adopters are paying for it. Progressive fee recoups a portion of the amount paid by early adopters and provides urgency measure to join.

City of Redondo Beach
LTE Capital Hard Match

LTE Buy in Fee - One time buy in

Year	Annualized Hard Match Share, includes 5% interest	Fee: 1/15th of hard match per year that increases by 1/15 annually			Charge: 1/15th of O&M cost per year that increases by 1/15 annually			
		Rate Schedule		**Fee**		**Rate Schedule**		**Fee**
1	$7,600	1/15	7%	$507	$26,300	1/15	7%	$1,753
2	$7,600	2/15	13%	$1,013	$26,300	2/15	13%	$3,507
3	$7,600	3/15	20%	$1,520	$26,300	3/15	20%	$5,260
4	$7,600	4/15	27%	$2,027	$26,300	4/15	27%	$7,013
5	$7,600	5/15	33%	$2,533	$26,300	5/15	33%	$8,767
6	$7,600	6/15	40%	$3,040	$26,300	6/15	40%	$10,520
7	$7,600	7/15	47%	$3,547	$26,300	7/15	47%	$12,273
8	$7,600	8/15	53%	$4,053	$26,300	8/15	53%	$14,027
9	$7,600	9/15	60%	$4,560	$26,300	9/15	60%	$15,780
10	$7,600	10/15	67%	$5,067	$26,300	10/15	67%	$17,533
11	$7,600	11/15	73%	$5,573	$26,300	11/15	73%	$19,287
12	$7,600	12/15	80%	$6,080	$26,300	12/15	80%	$21,040
13	$7,600	13/15	87%	$6,587	$26,300	13/15	87%	$22,793
14	$7,600	14/15	93%	$7,093	$26,300	14/15	93%	$24,547
15	$7,600	15/15	100%	$7,600	$26,300	15/15	100%	$26,300

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MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

SPECIAL FINANCE COMMITTEE MEETING

Tuesday, April 1, 2014 ● 1:00 p.m.
LA County Fire Department Headquarters, Training Room 25
1320 N. Eastern Ave., Los Angeles, CA 90063

Official Voting Members Present:

Stephen Sotomayor, Chair, representative for City of Los Angeles Police Department
Jan Takata, County of Los Angeles Chief Executive Office
Ed Roes, City of Los Angeles Administrative Office
Olivia Valero, representative for City of Long Beach
Joe Leonardi, representative for Los Angeles County Police Chiefs Association
Daniel Jordan, representative for California Contract Cities Association
Erick Lee, representative for Culver City, At Large #2
Greg Simay, Vice Chair, representative for City of Burbank, At Large #3
Cynthia Evans, representative for County of Los Angeles Sheriff's Department
Eric E. Tsao, representative for City of Torrance, At Large #1

Representatives For Official Voting Members Present:

Joshua Drake, City of Los Angeles, Chief Legislative Analyst Office

Others Present:

Executive Director Mallon, LA-RICS
Susy Orellana-Curtiss, LA-RICS
Truc Moore, County Counsel

Official Voting Members Absent:

June Gibson, representative for the City of Los Angeles Fire Department
Doug Cline, representative for County of Los Angeles Fire Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst Office
Kay Fruhwirth, representative for County of Los Angeles Department of Health Services
David Lantzer, representative for Los Angeles Area Fire Chief's Associations
Steve Smith, representative for City of Covina, At Large #4
James Alther, representative for Los Angeles Unified School District

AGENDA ATTACHMENT 1

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Chair Stephen Sotomayor took roll call, quorum was reached.

III. REPORTS –

Executive Director Executive Director Mallon reported the following:

- The LMR system is about 80% complete with Detailed System Design. Continuing to hone the list of sites.
- The LTE system is about 70% complete with the site visits. LA County Sheriff & Fire, and LAPD sites are done, and LA City Fire will also be done in a few days.
- LA-RICS needs to have right of entry to some city sites to do soil test bores. If there is a delay to any decision, it will compromise our ability to complete the project in time.
- LA-RICS met with NTIA staff including Max Steinberg, Grant Administrator, who made it clear that NTIA wants the project to succeed in its entirety.
- Executive Director Mallon met with Bill D'Agustino, FirstNet General Manager. LA-RICS asked Mr. D'Agustino about FirstNet's ability to deliver support to LA-RICS in the form of a Redundant Core, Home Subscriber (HSS), as well as maintenance support or a system refresh. His response was that they still do not know.
- LA-RICS' recommendation to the Board on April 3, 2014, was to move forward with the procurement of a LTE second core, and HSS and not to anticipate any participation from FirstNet in maintenance. Also, to recommend to the Board that the Authority not begin accumulating any kind of system refresh for the LTE system. At some point, California will make a decision to whether to opt-out of the national system. If the state of California does opt-out, it will be assuming the responsibilities of the system. If the State decides to continues to opt-in, then FirstNet will ultimately assume the responsibility for the system.

Executive Director Mallon stated that if the project ran into entities that will not grant access to the sites, NTIA wants the coverage for those sites dropped and to move on with the project. A route modification to the grants will be submitted once determined. NTIA would rather see the project succeed in a smaller scale than no system at all. Coverage to some cities that will be on fringe could be affected if the city next to them declines site usage. He mentioned that there is an ability to roaming through Verizon Wireless, but that will result in additional charges.

Committee Member Lee asked how the resiliency of a roaming coverage provided by commercial carrier versus the PSBN. Executive Director Mallon stated that failure of a commercial site will definitely impact the coverage. Unlike with PSBN, it has public safety standard, there is redundancy and backhaul, emergency generation and has spectrum specifically dedicated to support public safety. He added that even if the city opt-outs, they should allow LA-RICS to do the installation because if there is an emergency in that city the resources coming in from the assisting cities will need the PSBN service.

Committee Member Greg Simay commented that with the current system, if maximum participation, the system in its initial phase would offer county-wide coverage but may not

necessarily offer capacity during emergency conditions. Executive Director Mallon disagreed and said that access to the full 20 MHz spectrum provides a significant amount of capacity. Executive Director Mallon went on to add that capacity is not determined by the number of cell sites within an area.

Technical Committee Chair Kevin Nida reiterated that the capacity is huge per site. In a major incident (like the Metro Rail accident), the system is capable to have 1 HD video stream, 5 standard streams, 20 voice over IP conversation, 205MB per hour of file transfer (3,000 pages per hour), 1,000 web pages per hour, and available for other data is 83GB per second. He added that if cities agree to put the sites in, there will be extremely strong and uniform coverage across the County.

Stephen Sotomayor asked about compensation across the whole Funding Plan for the LTE system. If cities do not participate, but have the key site to the coverage within their area; what will be the cost of a roaming be to insure full coverage within that jurisdiction?

Executive Director Mallon stated that LA-RICS is still working with the vendor to see where they can alleviate some of the maintenance cost. Second year maintenance cost are about $5 million to $6 million, but $2 million is in leased fiber. They are working diligently to identify microwave links to avoid paying for leased fiber connectivity. LA-RICS staff is meeting with Southern California Edison and the Los Angeles Department of Water and Power, both having robust fiber systems.

Executive Director Mallon stated that he participated in the seminar regarding the future of T-Band. A panel participant, an attorney who has extensive dealings with FCC over the last 30 years, stated that he does not see Congress reversing their direction to vacate T-Band in 2021 to 2023.

IV. NEW BUSINESS – None

V. OLD BUSINESS –

ACTION ITEM: LA-RICS CASH FLOW ALLOCATION

Executive Director Mallon reported that several Board and Authority members expressed concern with loss of return on investment into their existing systems. Others discussed if was there to be some kind of late buy-in fee. There was discussion with some members of this committee to plan to try to develop a strategy that will allow members to perhaps not opt-out of the LA-RICS Authority as a member, yet participate in the system they so choose, and allow them to come in as long as three years from now without a penalty. It will be done through a phasing in of operating charges, such as the 1st year cost consisting of only the Authorities Administrative costs. The recommendation to the Board is to allow a transition plan that will extend without penalty the ability of members to opt-in to the program for LMR purposes for three years to enjoy their return of investment on their investment of their existing system and will only be on the fourth year or whatever the Board or this committee recommends that there be some kind of a catch up if they do not join until year five to some degree of catch up to the system refresh.

Committee Member Simay asked if it is possible to delay certain parts of the construction in order to take advantage of the fact that you have some systems that are operational in some areas and do have the initial construction phase in those areas that need immediate replacement. Also, if the city is allowed to ride out to their system until it needs replacement and only those cities that are prepared to invest a certain amount of money to replace their system. The only question is whether those invested dollars are about the same if they have to replace their own system versus when they participate in LA-RICS. Is it more economical to do that, all things considered, or is it more economical including to certain advantages to devote that money to LA-RICS system.

Executive Director Mallon responded that it depends on the degree to which the city has a set aside for a system refresh. If they are truly replacing their system, the catch-up will be significantly less because the system is being spread across the entire region. To address the issue of delaying build-out of the system, LA-RICS has the coverage and the capacity requirement that has to be addressed. We have to cover the whole County to support public safety users. LA-RICS should not leave any area uncovered by relying on systems that do not have a capacity to support.

Committee Member Eric Tsao asked, "if there is no difference to join in year 1 up to year 3 why would jurisdiction join in year 1 and not just wait till the end of year 3?" Executive Director Mallon responded that for the early subscribers operating costs will be minimized. By delaying System Refresh costs until year 4, you are not penalizing the early adaptor. Particularly, for the first year, if agencies only pay for administrative costs, they are actually paying a much cheaper price. Because of the cost of running the Authority, LA-RICS is looking at administrative cost of 20% of general overhead. Members of the Authority will be asked to pay their proportional share based on a recommendation of population; 40% of the administrative overhead is applied to LTE and 40% is applied to the LMR system. An agency would only be paying for their component to the extent they are on the system. For example, and agency on the system until year four would only be paying their proportional share of the administrative cost of that 20%. If that same agency wants to participate on the LTE system for the first three years they would be paying for their proportional share of the 20% administrative cost plus their share of the 40%Truc Moore, Authority Counsel, stated that the Board has proceeded forward with the Funding Plan with the anticipation of full participation in both systems.

Committee Member Jan Takata talked about the debt service for the future system refresh. He suggested having an independent actuarial study that can be presented to each Board or Council within 15 years. Chair Sotomayor stated that LA-RICS does need to look at what would be a prudent level to set aside and for how long can LA-RICS defer some of the replacement costs

Executive Director Mallon stated the Committee should meet once more and have this ready for the Board by May 2014 so they can vote.

After discussion, Chair Sotomayor suggested a recommendation to the Board to defer on the capital replacement costs for a period of time and to continue to look at what period makes sense and how much should go into the capital replacement fund. Committee Member Greg Simay called the 1st motion and Committee Member Joe Leonardi called the 2nd motion, unanimous vote carried. **MOTION APPROVED**.

VI. PUBLIC COMMENT – None

VII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 2:31 p.m.

The next meeting is on Thursday, April 24, 2014.

MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

REGULAR FINANCE COMMITTEE MEETING

Thursday, April 24, 2014 ● 1:00 p.m.
LA-RICS Headquarters, Large Conference Room
2525 Corporate Pl., Suite 200, Monterey Park, CA 91754

Official Voting Members Present:

Ed Roes, City of Los Angeles Administrative Office
Stephen Sotomayor, Chair, representative for the City of Los Angeles Police Department
Jan Takata, representative for the County of Los Angeles Chief Executive Office
Doug Cline, representative for County of Los Angeles Fire Department
Cynthia Evans, representative for County of Los Angeles Sheriff's Department
Kay Fruhwirth, representative for County of Los Angeles Department of Health Services
Olivia Valero, representative for the City of Long Beach
Daniel Jordan, representative for the California Contract Cities Association
Eric E. Tsao, representative for the City of Torrance, At Large #1
Erick Lee, representative for the City of Culver City, At Large #2
Steve Smith, representative for the City of Covina, At Large #4

Representatives For Official Voting Members Present:

Joshua Drake, representing Matias Farfan for the City of Los Angeles, Chief Legislative Analyst

Others Present:

Pat Mallon, LA-RICS
Susy Orellana-Curtiss, LA-RICS
Truc Moore, LA County Counsel

Official Voting Members Absent:

June Gibson, representative for the City of Los Angeles Fire Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst
James Alther, representative for the LAUSD Police Department
David Lantzer, representative for the Los Angeles Area Fire Chiefs' Association
Joe Leonardi, representative for the Los Angeles County Police Chiefs Association
Greg Simay, Vice Chair, representative for the City of Burbank, At Large #3

AGENDA ATTACHMENT 1

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Committee Chair Stephen Sotomayor took roll call and quorum was reached.

III. REPORTS –
Executive Director Pat Mallon provided an update on the following:

- LMR System – continuing to move forward with the Detailed Design and reviewing sites initially proposed by the vendor and adding sites to the list because tower construction at some sites initially proposed by Motorola will be difficult if not impossible to build. The list has been expanded from the original 88 to about 120. LA-RICS is including all 120 sites during development of the Environmental Impact Report.

- LTE System –
    - Site Access Agreements – there is only one city out of 231 that is ready to move forward with their site access agreement and will be presenting it to their City Council on May 8, 2014.

- NTIA and FirstNet – LA-RICS met with NTIA and representatives from FirstNet a few weeks ago. NTIA has expressed concern regarding LA-RICS' ability to complete the project within the timeframe. They asked what was LA-RICS' Plan B and requested that LA-RICS move forward with the sites in the City and County of Los Angeles and drop the rest of them LA-RICS responded that it is not acceptable. It is anticipated that NTIA will require development of a Corrective Action Plan which must include completion timelines. If LA-RICS fails to provide such timelines, LA-RICS LTE system funding may be suspended.

  Executive Director Mallon stated that if LA-RICS is met with great resistance, sites will be dropped in order to save the rest of the project. Unfortunately, if LA-RICS cannot show substantial progress, the project cannot be saved. The City of LA is working with their City Council, as is the Cities of Vernon and the City of Industry to take site access agreements to the respective City Council. LA-RICS is working with the Board of Supervisors to get approval for County owned sites.

  Executive Director Mallon stated that he has already met with two supervisors and is scheduled to meet with two more next week. He will also be going to Washington D.C. and is scheduled to meet with representatives from FEMA, NTIA, and FirstNet.

  Executive Director Mallon stated that at the last Board of Directors meeting, NTIA representative spoke regarding delays. If LA-RICS has any delays in the project to implement construction, that will result in a negative action. LA-RICS was reminded to be financially responsible.

Susy Orellana-Curtiss stated that as construction progresses LA-RICS will be reimbursed on a monthly basis. The BTOP Grant requested an advanced in order to project expenditures based on the proposed schedule and have the advance in LA-RICS bank account.

Executive Director Mallon stated that the priority is Site Access Agreements; LA-RICS has 30 – 60 days to show that there is a substantial amount of progress made in getting the site access agreements completed.

Chair Sotomayor suggested that the Finance Committee should make a few recommendations for the Executive Director to discuss at the upcoming meetings in Washington D.C. next week.

1) Request assistance from FirstNet to subsidize cost so that LA-RICS could be comparable to commercial solutions for a certain period of time that will allow for increased membership.

2) Request that LA-RICS be able to joint partnership with other outside agencies outside the public safety arena or utilities, but also users that might use the push-to-talk as a solution, like community colleges.

3) One of the hardest costs is the Hard-match requirement of the $19 million. The match requirement must be met as the grant is being drawn down. Is there any relief in that match and how they would count it for us? Is there any way that buying devices by agencies could be part of the hard-match.

Executive Director Mallon agreed. He stated that currently LA-RICS is looking into reducing cost by discussing:

- If LA-RICS attains fiber rental from SoCal Edison and DPW instead of paying Time Warner Cable, there is a $2 million in savings;
- If Core Maintenance is paid by FirstNet there is $1.5 million in savings; and
- Maintenance is usually done in a plug-in-play mode. We are paying money to the commercial provides maintenance groups, perhaps some of that maintenance can be done in-house (by member agencies) if member staff got some degree of training. They could perform the maintenance of the emergency generators while they are out there doing maintenance on the LMR System, resulting in a significant amount of maintenance savings.

Executive Director Mallon stated that the amount of savings depends on the creativity LA-RICS can be..

Chair Sotomayor asked what if a member agency does not want to join, but wants to be a subscriber of the system, then what does the Committee want the share cost to be? What is the impact to the overall funding plan or how does LA-RICS want to impact it? He stated that this would be an issue to recommend later on.

Last week LA-RICS met with FirstNet's Deputy CTO and asked what the timetable for moving anything forward was. FirstNet is looking at putting out an RFP in one and a half to two years.

Their main goal is to build a system that all public safety subscribes to. His concern is that it will probably take several years before FirstNet can provide services.

Chair Sotomayor stated that at the next JPA meeting he would like to include in his report a recommendation from the Committee for the Executive Director to incorporate a few talking points when he goes to Washington D.C.

Chair Sotomayor stated that the maintenance of the system is about $6 million price tag. LA-RICS is looking into applying for different grants to bring down the price for member agencies. At a true-up period to analyze the actual cost of operations may allow some cost reductions.

IV. NEW BUSINESS – None

V. OLD BUSINESS –

1. Discussion Item: Continue discussion on LA-RICS Funding Plan.

Chair Sotomayor stated that in regards to the Funding Plan, comments were received from the City of Beverly Hills. Susy Orellana-Curtiss stated that comments were also received from the City of Signal Hill. She reminded the Committee that the comment period is almost over. In order to incorporate member comments, concerns, and clarifications into the Funding Plan need to be received as soon as possible.

Executive Director Mallon stated that both LTE and LMR systems are to be deployed in phases. The LMR system has several phases and within the phases there are a number of Notices to Proceed. Funding is required before construction. In the development of the Funding Plan, assumptions were made as to the continuation of grant funding. If the grants slow down so does construction. There is no cost to members until the system can be used.

If there is a gap in the Funding Plan, the Board can decide to issue an Amended Funding Plan giving members 45-days to decide if they will opt-out. This is in addition to the original 35-day Opt-Out period from the Funding Plan approval.

Committee Member Erick Lee stated that the Funding Plan in itself would not change, but the slice of the pie would be bigger. He said that it is a big deal and that according to the Agreement, “increasing the financial obligation of the members” in which they have 45-days to opt-out. County Counsel, Truc Moore, stated that the Funding Plan spells out the contribution for each member. As member agencies drop-out, the percentage is revised, which goes to the Board and they adopt the revised Funding Plan. Committee Member Lee stated that the Funding Plan is unclear on those points and needs them to be reflected. Counsel stated that as far as for the LMR, if the Funding Plan is adopted May 8, 2014, the financial obligation is still zero.

True-up was brought up and Executive Director Mallon stated that it is a fair representation of the utilization of the system. Therefore, LA-RICS has asked PMC Consultants to contact all of the member agencies to validate the numbers on their survey because some of the numbers

are questionable. He went on to say that the LMR has four measuring criteria that could be used the first year, after that, it depends on the amount of users:

1) Number of radios
2) Number of average daily use
3) Number of average calls for system (this is the item that is less predictable)
4) Population

Chair Sotomayor suggested using the ability of some of the maintenance periods saying that there will be some cost during the first year, but not of a significant amount. The plan is to have the system up and running in 2017.

Executive Director Mallon said that LA-RICS met with ICIS and it seems as though they will continue with their own operation, but LA-RICS still has the responsibility to support the surrounding cities.

Executive Director Mallon continued to discuss the delay of the collection of system refresh funds to the beginning of year four from the last Finance meeting, and wondered if LA-RICS should look at four or five years. Or, should the suggested three years deferral remain as outlined in Amendment I. Chair Sotomayor stated that more information was needed in order to make a recommendation to the Board. Committee Member Olivia Valero reminded the Committee that they were to get an updated Cash Flow. Executive Director Mallon stated that the Committee would get it by the next Special Finance meeting on May 5, 2014. Chair Sotomayor stated that the question still remains, “If there is a penalty for coming in late,” This which is something for the Committee to further discuss.

The 60-day comment period ends May 6, 2014, and next Board Action Item is scheduled for Wednesday, May 7, 2014, with the hopes that the Board will adopt the Funding Plan, which then triggers the 35-day opt-out period. The only concern is going back to the LTE with the concern of the NTIA if LA-RICS is not able to have the Funding Plan at that point and the Board does not approve it until July 2014, and start construction until then. By then, NTIA will stop funds.

Chair Sotomayor suggested having a Special meeting on Monday, May 5, 2014, at 1:00 p.m. to discuss the responsibility of the member agencies, and the Funding Plan language.

Committee Member Valero requested the LA-RICS staff supply the Committee with the figures for those who stay for the 35-days and then opt-out Executive Director stated that it would be supplied at the next meeting.

Committee Member Lee made a couple requests:

1) LA-RICS Budget to be presented in May 2014, Ms. Orellana-Curtiss stated that at the request of Los Angeles County there will not be a Budget Action until after the adoption of the Funding Plan. She went on to state that in regards to LA-RICS Operations, there will not be any invoices on activities until August 2014, because they are activities incurred in the month of July 2014. LA-RICS will be fine until then.

2) Committee Meeting Minutes to be completed. He stated that minutes have not been approved since November 2013.

VI. PUBLIC COMMENT – None

VII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 2:36 p.m. by consensus.

The next special meeting is scheduled for Monday, May 5, 2014.

The next regular meeting is scheduled for Thursday, May 22, 2014.

Jeffrey Kolin, City Manager

April 22, 2014

Wendy Stallworth-Tait
LA-RICS Project Team
2525 Corporate Place, Suite 200
Monterey Park, CA 91754

Re: City of Beverly Hills Comments on Proposed LA-RICS Funding Plan

Dear Ms. Tait:

The City of Beverly Hills ("City") has received the LA-RICS Draft Proposed Funding Plan ("Plan") which was authorized for distribution by the LA-RICS Board of Directors for member comment. The City acknowledges that this document has been distributed pursuant to Section 5.01 of the LA-RICS Joint Powers Agreement.

The City has a longstanding commitment to interoperable communications and understands the tangible benefits to public safety that are realized by having its police and fire personnel operating on a regional communications network along with other first responders. To that end, the City joined LA-RICS as a charter member in 2009 to help shape the future of interoperable communications in the Los Angeles region and has remained actively engaged in the Joint Powers Authority ("JPA") during its developmental phase.

After carefully reviewing the Plan, the City has developed the comments that follow which center around issues of Plan resiliency, costs and service levels, return on local investment, increase in the project's scope, and compliance with the Joint Powers Agreement. The City sincerely hopes the Board revises the Plan to address these concerns and ultimately adopts a Funding Plan that will permit the maximum feasible participation by member agencies.

Resiliency of the Funding Plan

In order to continue membership in the JPA, the City desires certainty regarding the costs it will incur as a member. Part of that certainty relates to the resiliency of the Plan and its ability to endure even though circumstances or opportunities surrounding LA-RICS may change. The City has identified two (2) issues that threaten the Plan's resiliency.

1. Grant Funds

   The Plan relies almost exclusively on grant funds for the initial construction of both the Land Mobile Radio ("LMR") and broadband data ("LTE") systems. However, nearly 50% of the grant funds necessary for the LMR system construction have not been secured and are not guaranteed to be awarded to LA-RICS. Furthermore, the Plan does not have any contingency provisions to address how the JPA will proceed if the anticipated grant funds do not materialize. Because the Plan is silent on this issue, these costs would need to be apportioned among the LA-RICS members to continue the project or bring the LA-RICS project to a halt. If the former occurs, the unanticipated cost increases could adversely affect members' ability to remain in the JPA.

2. Withdraw of Members

   Section 5.01 of the Joint Powers Agreement allows for members to withdraw from LA-RICS at no cost after the Board of Directors adopts the Funding Plan. While the Plan acknowledges the potential of members withdrawing once costs are determined, there are no cost containment provisions to manage the risk which would be incurred by the remaining members of the JPA. Because the Joint Powers Agreement does not provide for an additional period of time to reconsider withdrawing from the JPA at no cost if the 35 day withdrawal period results in a significant and adverse fiscal impact to the remaining members, these costs would need to be apportioned among those remaining members to allow the project to continue or bring the LA-RICS project to a halt. Again, if the former occurs, the unanticipated cost increases could adversely affect members' ability to remain in the JPA.

Unknown and Fluctuating Costs and Service Levels

As indicated above, the City desires certainty regarding the costs it will incur for continuing as a member of the JPA or withdrawing its membership and possibly re-joining at a later date. Additionally, the City needs to know what level of service its first and secondary responders can expect from the LMR and LTE systems. The City has identified six (6) issues with the Plan that expose JPA members to unknown and fluctuating costs and service levels.

1. LMR Coverage

   While LA-RICS is planning to develop an LMR system with 95% coverage, this stated goal represents an anticipated average level of coverage throughout the Los Angeles County region. The actual coverage that would be enjoyed locally by each member is unknown. Because a significant portion of the City is located in a foothill area which poses challenges for LMR coverage, it's possible that the base LMR system would not provide 95% average coverage within the City. Therefore, the City may need to construct or maintain additional sites or facilities at unknown additional costs in order to ensure LMR coverage remains at a level that is greater than or equal to coverage it currently enjoys with its own LMR system.

2. LTE Coverage

The Plan refers to coverage zones where data downlink and uplink coverage varies by geographical area within the LA-RICS territory. However, there is no description as to which zone(s) apply to each member. Therefore, it's possible that anticipated LTE coverage for the City could vary between 70.4% and 96.5% (when considering that the City may fall into either the Foothills, Foothills – Developed, or LA Basin zones). Additionally, these coverage percentages represent an average level of coverage throughout each zone. Actual coverage that would be enjoyed locally within the City of Beverly Hills is unknown. Because a significant portion of the City is located in a foothill area which may be considered challenging terrain, it's possible that the base LTE system would not provide the anticipated level of coverage within the zone(s) where the City is located. Therefore, the City may need to construct additional LTE sites or facilities at additional unknown costs in order to ensure LTE coverage is provided at level that is acceptable and consistent.

Furthermore, the LTE system is described in the Plan as a "starter" system which is being planned for and developed in a very compressed timeframe. This presumes that additional investments in capital and infrastructure may be necessary for in order for LA-RICS members to truly enjoy a fully-functional LTE system.

3. Incomplete Information

While the JPA has contracted with the vendor to develop both systems at known costs, the actual costs which would be allocated to members are based on estimates only. Many members did not respond to surveys requesting information that is critical for constructing member cost estimates, and the member data that was submitted was not validated by the JPA or an independent third party. Therefore, costs estimates are based upon incomplete information that could lead to actual costs incurred by members that differ significantly from those which have been presented in the Draft Fee Estimates section of the Plan (Appendix 3). Additionally, members' actual usage on the systems has the potential to significantly alter cost allocations to members from year to year. The Plan does not address these issues and provides for no cap on cost increases that members may incur even though a specific member's usage on the systems remain relatively unchanged. Mechanisms to address this issue, such as rate fixing or a rate stabilization fund, could be employed to cushion these impacts and smooth out year-to-year changes.

4. Formula Construction

The Plan relies heavily on the variable titled "number of dispatched calls for service" to allocate LMR system costs to the JPA membership. This variable is problematic because it relies solely on member reported data which can be misinterpreted or mistakenly calculated and is not

independently verifiable. Therefore, the use of this variable to calculate cost does not necessarily provide information as to how members are using the system. If the desired outcome of using this variable to allocate cost relates to determining a member agency's workload and thus propensity of using the LMR system, the City recommends using a much more reliable variable such as the amount of air time on the system used by each member agency.

5. Centralized Operations and Maintenance

   The Plan indicates that members will realize costs savings from LA-RICS's centralized operations and maintenance ("O&M") of the LMR system. However, the Plan does not indicate what the anticipated O&M service levels will be for the system. Therefore, members may need to maintain their own personnel or contract with a third party, at unknown costs, to supplement the O&M services that may be available from LA-RICS to ensure their portion of the LMR system remains operational at acceptable levels.

6. Withdrawing and Re-joining

   The Plan does not indicate with specificity what financial obligations would be incurred by agencies that withdraw from LA-RICS within 35 days of adoption of the Funding Plan and then choose to join at a later date. A brief section of the Plan (Appendix 2) describes why certain fees and charges should be levied against "late adopters." However, this section is unclear about what charges would actually be assessed for joining at a later date, and the formulas and examples provided are ambiguous and contradictory. This lack of clarity further erodes the Plan's ability to provide members with the information necessary to conduct an accurate cost-benefit analysis of remaining in the JPA versus withdrawing.

Return on Local Investment

The City currently maintains an interoperable LMR system that provides outstanding local service and is part of a regional radio system network that provides interoperability with other first responders and wide-area coverage throughout the Los Angeles county region. Nearly $7 million has been invested by the City to accomplish this feat, and the system still has many years of useful life remaining. Before migrating to LA-RICS, or any other LMR solution, the City desires to recoup the full return on its investment. The City has identified two (2) issues that impact its return on investment.

1. Credits for Infrastructure

   One of the stated benefits of LA-RICS is the reuse of infrastructure assets to leverage investments that members have made in existing radio sites and equipment. The City has invested millions of dollars to construct its Project 25 compliant, trunked digital LMR system. This investment includes the development and purchase of radio sites and equipment that have been identified by for inclusion in both LA-RICS systems.

Section 5.02 of the Joint Powers Agreement allows for members to use their equipment or property in lieu of other contributions that may be required. However, the Board of Directors eliminated the prospect of providing credits or offsets to members providing infrastructure to the JPA during its March 2014 meeting. In recognition of the sizeable investment made by members to develop these assets which would clearly benefit LA-RICS, the City recommends that the Plan be revised to consider member credits for the use of their property and equipment in a manner that would reduce the costs they otherwise would incur if infrastructure credits were not allowed.

2. Unclear Migration Plan to LA-RICS

   During the stakeholder meeting process, members repeatedly requested that a phasing plan which recognized the life cycle of existing infrastructure and equipment be included in the Funding Plan. This phasing would allow members to migrate from their existing LMR systems to LA-RICS over a period of time and is necessary to ensure members don't begin incurring costs for LA-RICS while they still have operable radio systems in use. As it is currently written, the Plan does not provide members with a migration path where double-paying is avoided while still maintaining membership in the JPA.

Increase in Scope of LA-RICS

The City became a member of LA-RICS in 2009 to assist the JPA in developing an interoperable LMR network for the entire Los Angeles county region. In 2010, the scope of the LA-RICS project was increased beyond its original intention of creating an LMR system and now includes the construction of a public safety broadband data (LTE) network. This development was brought about by a $154 million grant that was awarded to LA-RICS under the federal Broadband Technology Opportunity Program (BTOP).

While a regional public safety LTE system would certainly benefit all members, some members may not have the need for the LA-RICS's LMR system. Therefore, these agencies may want to participate in the LTE system, but not the LMR system because it may be many years before their systems reach the end of their useful lives. During its March 2014 meeting, the Board of Directors decided this issue by prohibiting members from participating in one system only and mandating full participation by all members. The City recommends that the Plan be revised to allow for less than full participation in order to better meet member agencies' unique needs and allow them to recoup the full return on their LMR system investments which may have been made years ago.

Compliance with the Joint Powers Agreement

The Joint Powers Agreement specifies that the Funding Plan must include a development schedule and phasing plan which will permit the maximum feasible participation by members. However the Plan, as it

is currently written, does not meet this criteria. This missing aspect of the Plan is critical for members to fully understand the scope of the LA-RICS project and the 15-30 year commitments that they would be obligated to make if they continue their membership in LA-RICS. Without a development schedule and phasing plan, members cannot determine the fiscal impact on their respective agencies and cannot plan to migrate onto the LA-RICS system.

Since 2009, the City of Beverly Hills has supported LA-RICS's efforts to develop an interoperable communications system that will benefit first responders and communities throughout the Los Angeles region. However, the Funding Plan that has been authorized for distribution by the Board of Directors for member comment—a document that will serve as the guiding financial blueprint for the next 15 years as the JPA expends over $500M—is both ambiguous and incomplete. Throughout the Plan, key information needed by stakeholders to conduct fiscal analyses is either missing or vague. If this plan was adopted by the Board of Directors as-is, significant financial decisions would still need to be contemplated by the membership in the near future and the prospect of needing to adopt a second or amended Funding Plan would almost certainly be necessary.

The City of Beverly Hills respectfully requests that the Board of Directors take its comments into consideration as it works to revise the LA-RICS Funding Plan.

Sincerely,

Jeffrey Kolin
City Manager

MINUTES

LOS ANGELES
REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

REGULAR FINANCE COMMITTEE MEETING

Thursday, May 22, 2014 ● 1:00 p.m.
LA-RICS Headquarters, Large Conference Room
2525 Corporate Pl., Suite 200, Monterey Park, CA 91754

Official Voting Members Present:

Ed Roes, City of Los Angeles Administrative Office
Stephen Sotomayor, Chair, representative for the City of Los Angeles Police Department
Matias Farfan, representative for City of Los Angeles, Chief Legislative Analyst
Jan Takata, representative for the County of Los Angeles Chief Executive Office
Doug Cline, representative for County of Los Angeles Fire Department
Cynthia Evans, representative for County of Los Angeles Sheriff's Department
Olivia Valero, representative for the City of Long Beach
David Lantzer, representative for the Los Angeles Area Fire Chiefs' Association
Joe Leonardi, representative for the Los Angeles County Police Chiefs Association
Daniel Jordan, representative for the California Contract Cities Association
Eric E. Tsao, representative for the City of Torrance, At Large #1
Erick Lee, representative for the City of Culver City, At Large #2
Greg Simay, Vice Chair, representative for the City of Burbank, At Large #3

Representatives For Official Voting Members Present:

Others Present:

Pat Mallon, LA-RICS
Susy Orellana-Curtiss, LA-RICS
Truc Moore, LA County Counsel

Official Voting Members Absent:

June Gibson, representative for the City of Los Angeles Fire Department
Kay Fruhwirth, representative for County of Los Angeles Department of Health Services
James Alther, representative for the LAUSD Police Department
Steve Smith, representative for the City of Covina, At Large #4

AGENDA ATTACHMENT 1

I. CALL TO ORDER

II. ANNOUNCE QUORUM – Committee Chair Stephen Sotomayor took roll call and quorum was reached.

III. REPORTS –
Chair Sotomayor stated that since the minutes were not on the Agenda and there are several of them to approve, he moved that they be added to the next Agenda.

Executive Director Pat Mallon provided an update on the following:

- NTIA – the later part of April 2014, NTIA met with LA-RICS for three days and went over activities within the project. On April 28, 2014, a Corrective Action Plan (CAP) was issued with three requirements outlined below:

    1) Biological assessment had to be completed by a certain date and the environmental assessment had to be done one week later. Both assessments were submitted by the required dates;
    2) Board of Director's adopt the Funding Plan no later than June 5, 2014, or NTIA will suspend the BTOP grant; and
    3) LA-RICS must submit a Project Management Plan including sequential construction of the project. NTIA requested a Plan B, which would incude sites only in the City of LA and County sites. LA-RICS responded by maintaining there are 88 member agencies to consider. LA-RICS has submitted a deployment plan that includes all sites divided into six areas.

Executive Mallon was asked about an extension of the opt-out period and stated that the 35-day opt-out period is a policy decision by the Board. Truc Moore, County Counsel, stated that the JPA's requirement is for a minimum of 35-days, which is not enough time to have all those involve review, digest materials, and get it on their City Council's agenda. Therefore, the staff will probably be recommending 45 or 60-days. PMC will be working with LA-RICS to send out a Draft Staff Report to Committee Members.

Executive Director Mallon was asked about a contingency plan and its authority member's coverage. He stated that all members will be covered. There is one member agency that will not allow LA-RICS to install installation in their city; there were 231 sited; now there are 229.

IV. NEW BUSINESS – None

V. OLD BUSINESS –

1. Discussion/Action Item: Recommendation to approve the LA-RICS Funding Plan by the JPA Board of Directors.

Executive Director Mallon provided an overview of the recommendation letter that was handed out at the meeting.

A Committee Member asked about the 40% allocation recommended in Section 1.c.i. Susy Orellana-Curtiss stated that the 40% was for Supporting Staff (15 positions), leased office space, and property insurance. Executive Director Mallon stated that the other 60% comes from LMR (30%) and LTE (30%).

Another Committee Member comment was made regarding LTE Operating Cost in Section ii.2.b. LA-RICS recommendation for population and geography to be equally split 50%-50%. Geography will be considered at total square miles due to stakeholder significant comments regarding this.

PMC consultants, Phil Carter, Derek Wong, and Aaron Pfannenstiel, wrote on the white board as they explained the percentages.

	40% Admin	50% Population 50% Geography (sq. miles)
LTE	**30% Admin** ---------- Operating Costs ---------- 10% Match	---------- # of Data Units ---------- 50% Population 50% Geography
LMR	**30% Admin** ---------- Operating Cost ---------- Refresh @ year 4	---------- # of Radios Daily ----------

Executive Director Mallon recommended to the Finance Committee Members that the Authority commit to issuing an amended Funding Plan once there is a more accurate picture of what the LMR System operating costs are obtained. This recommendation is based on a number of comments wherein Members have voiced concerns about committing to LMR operations well before this information is available. It is recognized that changes in sites, due to an array of reasons, will affect the Funding Plan.

Executive Director Mallon stated that what he heard yesterday from Motorola about limitations with the ISSI interface was disturbing. This could place a dramatic limitation on the connection between LA-RICS and ICIS. Another option revealed yesterday was an “Interzone,” which requires further investigation. This could meet the interoperable communications requirement and not have the choking point that an ISSI interface would provide.

Chair Sotomayor stated that the LMR system was expected to be paid by UASI and SHSGP Grants, but we cannot issue a Notice to Proceed (NTP) until the money is in place. Further, if grant funding is not received that will constitute a big change to the Funding Plan. Executive Director Mallon stated that a ball park figure to the LMR system (including additive alternates) is $205 million (with 15 years of maintenance). The grant balance at is $55 million. If grant funding fails to materialize, an amendment to the Funding Plan would give member agencies an additional opportunity to opt-out.

County Counsel Moore stated that if a member agency opts out, the Board can allow anyone back in as a member as long as they meet the JPA requirements. There are other requirements to be met as a Subscriber or an Affiliate. Concern arose regarding the cost of staying or opting back in at a later date. County Counsel Moore stated that the LMR system carries a bit more of protection since there is no cash match obligation and is fully funded for the grant dollars that has been authorized. When the Board awarded the contract, Executive Director Mallon was told that a NTP required sufficient funding. On the LTE system, member agencies will incur liabilities, and the Funding Plan at this time does not have the cost of opting back in. If necessary, that will be developed down the line after the Board is able to assess the actual liabilities and costs.

---- BREAK: Part 2 of the meeting ----

CONT. **Discussion/Action Item: Recommendation to approve the LA-RICS Funding Plan by the JPA Board of Directors.**

Chair Sotomayor continued the meeting with PMC consultants going over comparisons of total costs. Mr. Derek Wong, PMC, discussed Cash Flow Estimates and used Scenario 12 as an example. A detailed discussed took place regarding the cost factors associated with the various scenarios that were presented by PMC. Aaron Pfannenstiel, PMC, stated that two or three cost factors had overarching support, but geography and other cost factors were brought up and not explored since they were out-weighing factors. During the 60-day comment period in the Funding Plan, geography entered into play because member agency comments reflected concerns about the data input variables. Simplification was the theme that came out of the comments and geography was the factor that would eliminate some of the concerning factors.

The issue of radios being added and subtracted was raised, Authority Council Moore stated that the “true-up” could still be performed at the direction of the Board and the period they want to set. Some Committee members wanted to know if there is a provision that prevents member agencies from turning off their devices and waiting a few years to turn them on (e.g. in order to avoid the withdrawal penalty) and in the meantime just pay the Administrative fees. The Committee Members want to know if the Funding Plan has a safeguard that will avoid forcing remaining member agencies to absorb the cost and make it less “gameable.” Executive Director Mallon stated that such a safeguard is not in place. He also stated that there is no “true-up” for the first three years and the cost of operation of the LMR system is significantly reduced during that period. The first year there will be only Administrative fees; second and third year only maintenance fees. Chair Sotomayor asked PMC to run a report on

the number of radios along with the population/geography for operation and not just on a device basis. Both scenarios may be put together and presented to the JPA.

PMC stated that the numbers should not matter; it is more about the methodology. Through the stakeholder meetings members commented that they were weary of some of the variables and factors, and through those comments they were able to simplify the approach to make it more understandable and less "gameable." Therefore population and geography is a more understandable and simpler approach.

Chair Sotomayor stated that the Committee could recommend both a Plan using devices and another one with population/geography. There are pros and cons for each one. PMC stated that in collecting variables they noticed that there was a strong correlation between populations, number of units, and call volume.

Some Committee Members voiced their concern about reviewing the Funding Plan before submitting it to the Board for approval. Executive Director Mallon stated that the Funding Plan is already on the Board Agenda, which has already been posted for next week's meeting of Wednesday, May 28, 2014. Authority Counsel Moore stated that the NTIA is looking for a Funding Plan that accounts for LTE. However, for the purpose of staying consistent with the JPA Agreement, a formula has been discussed that suspends an obligation in LMR cost until some period in the future. Also if more time is needed, the next regular Board meeting is the following Thursday, June 5, 2014.

Committee Members continued their discussion regarding variables that best suit their own member agencies. Committee Member Jan Takata stated that there could be an automatic periodic "re-opener" to re-examine the Funding Plan since landscape, technology, the replacement system, criteria, and other factors will change within time. Population and usage will also be changing and at present they are unpredictable. The system needs to be built today and the Committee needs to move on or else there is no system.

Committee Member Leonardi stated that maybe the Committee should move on with the Funding Plan without reviewing the narrative portion of it, just amend and extend the opt-out period from 35-days to 60 or 90-days. He also stated that there should be two Funding Plans presented to the Board; one with 50% - 50% and the other Funding Plan of 40%-30%-30%.

After discussion Chair Sotomayor clarified the amendment to the previous recommendation of a 60-day opt-out period and to recommend two Funding Plans, the Committee voted as follows:

Committee member Leonardi called the 1st motion and Committee Member Dan Jordan called the 2nd motion. **MOTION APPROVED**.

Members voting Yes:

Dan Jordan
Cynthia Evans
Jan Takata
Eric Lee
Matias Farfan
Ed Roes
Stephen Sotomayor
Doug Cline
Olivia Valero
Greg Simay
Joe Leonardi

Members voting No:

David Lantzer
Erick Tsao

VI. PUBLIC COMMENT – None

VII. ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 3:15 p.m. by consensus.

The next regular meeting is scheduled for Thursday, June 26, 2014.

LA-RICS

LOS ANGELES REGIONAL INTEROPERABLE COMMUNICATIONS SYSTEM AUTHORITY

2525 Corporate Place, Suite 200
Monterey Park, California 91754
(323) 881-8291

PATRICK J. MALLON
EXECUTIVE DIRECTOR

May 22, 2014

TO: LA-RICS AUTHORITY FINANCE COMMITTEE MEMBERS

FROM: PATRICK J. MALLON
EXECUTIVE DIRECTOR

SUBJECT: ACCEPTANCE OF LA-RICS FUNDING PLAN

RECOMMENDED ACTION

It is recommended that your Committee:

1. Discuss the following Funding Plan options for the LA-RICS Joint Powers Authority (JPA):

    a. Draft Funding Plan as Released for Comment by the Authority Board of Directors on March 6, 2014. The Draft Funding Plan was based on Scenario 12 which included a multifaceted formula for each of the LMR and LTE system operations. Consideration was also given to exclude "In-Kind" match and Capital Replacement Reserve for the LTE system, in accordance with the policy decisions made by the Board of Directors,. Included in the LTE system operating costs were added maintenance for Home Subscriber Services (HSS) and a Redundant Evolved Packed Core, also as a result of the Board of Director's policy decision. The Draft Funding Plan also included a Capital Replacement Reserve allocation to be established in the first year of operation for the LMR system.

    b. Subsequent discussions regarding the Draft Funding Plan resulted in the release of Revised Appendix I, Cash Flow on April 3, 2014. Revised Appendix I contemplated the Capital Replacement Reserve for the LMR system be deferred, with no accumulation, until the beginning of the fourth year of system operation. An administrative cost allocation for the ongoing support of Authority Operations was included at 20% of the overall Administrative cost was also included in the revision.

    c. In consideration of feedback received during the 60 day Comment Period, the following is recommended for your further consideration.

        i. The Base Administrative allocation should be increased to 40% of the total annual Administrative cost. This recommendation is based on a requirement by CJPIA that the Authority have a written lease for office space and the Authority should directly assume the cost for leasing such space. Additionally, as a

conditional requirement in the execution of numerous Site Access Agreements, the Authority will be required to provide commercial property insurance for real property and equipment at each site.

1. Collection of the Base Administrative Cost allocation is expected to commence during Fiscal Year 2014/15.

ii. LTE System Operating Costs include additional maintenance costs for Home Subscriber Services (HSS) and the Redundant Evolved Packet Core and exclude Capital Replacement Reserve and be based on the following criteria:

1. The cost of operation during the first year of operation (FY 2015/16) is based on:
    a. Distribution of 30% of Authority staffing and operational costs and fiber connectivity operational costs, if applicable, based on the average number of data devices in use.
    b. Hard Match contribution be based on members proportional share of countywide population and geography equally split 50%/50%
2. The cost of operation during the second and subsequent years of operation (effective FY 2016/17) is based on:
    a. Distribution of 30% of Authority staffing and operational costs and full cost of LTE system maintenance (including leased fiber connectivity, if applicable) based on the average number of data devices in use.
    b. Hard Match contribution based on members proportional share of countywide population and geography equally split 50%/50%.
3. Cost of operation during years following the extinguishment of commercial financing will continue as reflected above with the exception of Hard Match contribution.

iii. LMR System Operating Costs be based on the following criteria:

1. Consideration of LMR System Operating Costs will be the subject of a revision to the Funding Plan released prior to the activation of the system. This in consideration of:
    a. Execution of the LMR contract is by Phase, with each Phase requiring approval of a Notice to Proceed by the Authority Board of Directors
    b. Sufficient funding for each Phase must be demonstrated to the Authority Board of Directors before such consideration.
        i. Individual Notices to Proceed may be authorized by the Board of Directors on a Site by Site basis, depending on funding availability.
        ii. Any decrease or suspension in grant funding which might subject Authority members to an increased substantial financial liability should be evaluated by the Board to determine whether a revised Funding Plan should be

adopted, and will trigger an additional 45 day Opt-Out Period

iii. The LMR contract provides for termination for non-appropriation of funds, thus further protecting Members from liabilities incurred that cannot be addressed via revision to the Funding Plan.

c. The Detailed Design of the LMR system is currently in progress.
   i. The inability to achieve maximum benefit from some of the designated sites is resulting in site substitution and/or additions. This may result in an adjustment of maintenance and operating costs.
   ii. Changes in LMR technology during the design phase which warrant reconfiguration of operational aspects may result in a change to the costs allocated to Authority members
   iii. An updated analysis of projected maintenance and operating costs may also result in a change to the costs allocated to Authority members.

2. It is anticipated that any revision to the Funding Plan for LMR system operations will include:
   a. Deferment of the Capital Replacement Reserve until the fourth year of operation.
   b. The cost of operation during the first year of operation (FY 2017/18) is based on:
      i. Distribution of 30% of Authority staffing and operational costs and fiber connectivity operational costs, if applicable, based on the average number of radios in use monthly
   c. The cost of operation during the second and third year of operation (FY 2018/19 and 2019/20) is based on:
      i. Distribution of 30% of Authority staffing and operational costs, and full cost of LMR system maintenance, including fiber connectivity operational costs, if applicable, based on the average number of radios in use monthly
   d. The cost of operation during all subsequent years is based on:
      i. Distribution of 30% of Authority staffing and operational costs, and full cost of LMR system maintenance, including fiber connectivity operational costs, if applicable, based on the average number of radios in use monthly
      ii. Contribution toward a Capital Replacement Reserve Fund.

2. Forward the Committee's Recommended Option to the Authority's Board of Directors and recommend adoption by the Board.

3. It is also recommended that the Committee discuss Opt-Out provisions for those Members that have committed the use of sites for the LTE system via Site Access Agreements.

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Annual Costs - Scenario 12.8.2, Distributed by Average Daily Radios (LMR) and High Speed Units (LTE); Baseline Admin Cost Distributed by 50% Population/50% Geography; Hard Match Distributed by 50% Population/50% Geography	FY 2014/2015	FY 2015/16				FY 2016/17				
	JPA Operations	JPA Operations	LMR	LTE	Total	JPA Operations	LMR	LTE	Total
City of Agoura Hills	$ 2,343	$ 2,390	$ -	$ -	$2,390	$ 2,438	$ -	$ -	$2,438
City of Alhambra	$ 5,434	$ 5,543	$ -	$ 15,669	$21,212	$ 5,654	$ -	$ 66,157	$71,811
City of Arcadia	$ 4,690	$ 4,783	$ -	$ 12,173	$16,956	$ 4,879	$ -	$ 43,728	$48,607
City of Artesia	$ 1,096	$ 1,118	$ -	$ -	$1,118	$ 1,141	$ -	$ -	$1,141
City of Avalon	$ 680	$ 693	$ -	$ 1,343	$2,036	$ 707	$ -	$ 2,179	$2,886
City of Azusa	$ 3,932	$ 4,010	$ -	$ 6,495	$10,506	$ 4,091	$ -	$ 31,740	$35,830
City of Baldwin Park	$ 4,902	$ 5,000	$ -	$ 9,771	$14,771	$ 5,100	$ -	$ 55,903	$61,003
City of Bell	$ 2,199	$ 2,243	$ -	$ 3,447	$5,690	$ 2,288	$ -	$ 16,069	$18,357
City of Bell Gardens	$ 2,506	$ 2,556	$ -	$ 7,741	$10,298	$ 2,608	$ -	$ 55,074	$57,682
City of Bellflower	$ 4,853	$ 4,950	$ -	$ -	$4,950	$ 5,049	$ -	$ -	$5,049
City of Beverly Hills	$ 2,669	$ 2,722	$ -	$ 9,593	$12,315	$ 2,777	$ -	$ 50,615	$53,392
City of Bradbury	$ 388	$ 395	$ -	$ -	$395	$ 403	$ -	$ -	$403
City of Burbank	$ 8,119	$ 8,281	$ -	$ 58,582	$66,863	$ 8,447	$ -	$ 437,246	$445,692
City of Calabasas	$ 3,519	$ 3,590	$ -	$ -	$3,590	$ 3,662	$ -	$ -	$3,662
City of Carson	$ 7,769	$ 7,924	$ -	$ 731	$8,655	$ 8,083	$ -	$ 7,042	$15,125
City of Cerritos	$ 3,942	$ 4,021	$ -	$ -	$4,021	$ 4,102	$ -	$ -	$4,102
City of Claremont	$ 4,044	$ 4,124	$ -	$ 5,006	$9,131	$ 4,207	$ -	$ 16,366	$20,573
City of Commerce	$ 1,755	$ 1,790	$ -	$ -	$1,790	$ 1,826	$ -	$ -	$1,826
City of Compton	$ 6,517	$ 6,648	$ -	$ 7,136	$13,784	$ 6,781	$ -	$ 17,865	$24,646
City of Covina	$ 3,575	$ 3,646	$ -	$ 5,798	$9,445	$ 3,719	$ -	$ 27,887	$31,606
City of Culver City	$ 2,803	$ 2,859	$ -	$ 8,658	$11,517	$ 2,916	$ -	$ 39,583	$42,499
City of Downey	$ 7,687	$ 7,840	$ -	$ 36,566	$44,407	$ 7,997	$ -	$ 232,209	$240,207
City of Duarte	$ 1,689	$ 1,723	$ -	$ 731	$2,454	$ 1,757	$ -	$ 7,042	$8,799
City of El Monte	$ 7,267	$ 7,412	$ -	$ 9,341	$16,753	$ 7,560	$ -	$ 33,323	$40,883
City of El Segundo	$ 1,755	$ 1,790	$ -	$ 4,398	$6,188	$ 1,826	$ -	$ 14,745	$16,571
City of Gardena	$ 3,920	$ 3,998	$ -	$ 32,741	$36,739	$ 4,078	$ -	$ 254,260	$258,337
City of Glendale	$ 14,559	$ 14,851	$ -	$ 27,715	$42,565	$ 15,148	$ -	$ 39,075	$54,222
City of Glendora	$ 4,992	$ 5,092	$ -	$ 8,095	$13,187	$ 5,193	$ -	$ 38,733	$43,926
City of Hawaiian Gardens	$ 869	$ 887	$ -	$ -	$887	$ 905	$ -	$ -	$905
City of Hawthorne	$ 5,238	$ 5,343	$ -	$ 10,794	$16,137	$ 5,450	$ -	$ 63,176	$68,626
City of Hermosa Beach	$ 1,215	$ 1,239	$ -	$ 3,655	$4,894	$ 1,264	$ -	$ 16,277	$17,541
City of Hidden Hills	$ 381	$ 388	$ -	$ -	$388	$ 396	$ -	$ -	$396
City of Huntington Park	$ 3,395	$ 3,463	$ -	$ 6,860	$10,323	$ 3,532	$ -	$ 39,678	$43,210
City of Industry	$ 2,078	$ 2,120	$ -	$ -	$2,120	$ 2,162	$ -	$ -	$2,162
City of Inglewood	$ 7,016	$ 7,157	$ -	$ 6,337	$13,493	$ 7,300	$ -	$ 6,337	$13,636
City of Irwindale	$ 1,715	$ 1,750	$ -	$ 1,684	$3,433	$ 1,784	$ -	$ 2,545	$4,330
City of La Canada Flintridge	$ 2,414	$ 2,463	$ -	$ 73	$2,536	$ 2,512	$ -	$ 704	$3,216
City of La Habra Heights	$ 1,316	$ 1,343	$ -	$ 1,278	$2,621	$ 1,369	$ -	$ 1,870	$3,239
City of La Mirada	$ 3,745	$ 3,820	$ -	$ -	$3,820	$ 3,896	$ -	$ -	$3,896
City of La Puente	$ 2,568	$ 2,619	$ -	$ -	$2,619	$ 2,672	$ -	$ -	$2,672
City of La Verne	$ 2,903	$ 2,961	$ -	$ 5,282	$8,243	$ 3,020	$ -	$ 5,282	$8,302
City of Lakewood	$ 5,583	$ 5,695	$ -	$ -	$5,695	$ 5,809	$ -	$ -	$5,809
City of Lancaster	$ 23,934	$ 24,413	$ -	$ -	$24,413	$ 24,901	$ -	$ -	$24,901
City of Lawndale	$ 1,960	$ 1,999	$ -	$ -	$1,999	$ 2,039	$ -	$ -	$2,039
City of Long Beach	$ 31,768	$ 32,404	$ -	$ 90,006	$122,409	$ 33,052	$ -	$ 370,848	$403,900
City of Los Angeles	$ 268,674	$ 274,048	$ -	$ 721,733	$995,780	$ 279,529	$ -	$ 2,741,272	$3,020,801
City of Lynwood	$ 4,278	$ 4,364	$ -	$ -	$4,364	$ 4,451	$ -	$ -	$4,451
City of Manhattan Beach	$ 2,410	$ 2,459	$ -	$ 8,235	$10,693	$ 2,508	$ -	$ 41,684	$44,191
City of Maywood	$ 1,558	$ 1,589	$ -	$ -	$1,589	$ 1,621	$ -	$ -	$1,621
City of Monrovia	$ 3,209	$ 3,273	$ -	$ 9,122	$12,395	$ 3,338	$ -	$ 37,522	$40,860
City of Montebello	$ 4,533	$ 4,624	$ -	$ 12,717	$17,340	$ 4,716	$ -	$ 51,616	$56,333
City of Monterey Park	$ 4,341	$ 4,428	$ -	$ 9,323	$13,751	$ 4,516	$ -	$ 21,945	$26,461

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Annual Costs - Scenario 12.8.2, Distributed by Average Daily Radios (LMR) and High Speed Units (LTE); Baseline Admin Cost Distributed by 50% Population/50% Geography; Hard Match Distributed by 50% Population/50% Geography	FY 2014/2015	FY 2015/16				FY 2016/17				
	JPA Operations	JPA Operations	LMR	LTE	Total	JPA Operations	LMR	LTE	Total
City of Norwalk	$ 6,886	$ 7,024	$ -	$ -	$7,024	$ 7,165	$ -	$ -	$7,165
City of Palmdale	$ 25,736	$ 26,251	$ -	$ -	$26,251	$ 26,776	$ -	$ -	$26,776
City of Palos Verdes Estates	$ 1,483	$ 1,513	$ -	$ 2,305	$3,818	$ 1,543	$ -	$ 10,528	$12,070
City of Paramount	$ 3,508	$ 3,578	$ -	$ -	$3,578	$ 3,650	$ -	$ -	$3,650
City of Pasadena	$ 10,643	$ 10,856	$ -	$ 25,660	$36,516	$ 11,073	$ -	$ 80,567	$91,639
City of Pico Rivera	$ 4,640	$ 4,733	$ -	$ -	$4,733	$ 4,828	$ -	$ -	$4,828
City of Pomona	$ 11,328	$ 11,554	$ -	$ 17,578	$29,132	$ 11,785	$ -	$ 80,689	$92,474
City of Ranchos Palos Verdes	$ 4,371	$ 4,459	$ -	$ -	$4,459	$ 4,548	$ -	$ -	$4,548
City of Redondo Beach	$ 4,370	$ 4,457	$ -	$ 10,968	$15,425	$ 4,546	$ -	$ 37,474	$42,020
City of Rolling Hills Estates	$ 1,014	$ 1,034	$ -	$ -	$1,034	$ 1,055	$ -	$ -	$1,055
City of Rosemead	$ 3,558	$ 3,630	$ -	$ -	$3,630	$ 3,702	$ -	$ -	$3,702
City of San Dimas	$ 3,962	$ 4,041	$ -	$ -	$4,041	$ 4,122	$ -	$ -	$4,122
City of San Fernando	$ 1,578	$ 1,609	$ -	$ 2,596	$4,205	$ 1,642	$ -	$ 12,694	$14,335
City of San Gabriel	$ 2,677	$ 2,731	$ -	$ 8,497	$11,228	$ 2,786	$ -	$ 40,052	$42,838
City of San Marino	$ 1,295	$ 1,321	$ -	$ 4,186	$5,507	$ 1,347	$ -	$ 19,963	$21,311
City of Santa Clarita	$ 19,214	$ 19,598	$ -	$ -	$19,598	$ 19,990	$ -	$ -	$19,990
City of Santa Fe Springs	$ 2,332	$ 2,378	$ -	$ 5,422	$7,801	$ 2,426	$ -	$ 33,822	$36,248
City of Santa Monica	$ 5,908	$ 6,026	$ -	$ 17,988	$24,014	$ 6,147	$ -	$ 81,099	$87,245
City of Sierra Madre	$ 1,046	$ 1,067	$ -	$ 2,636	$3,703	$ 1,089	$ -	$ 8,947	$10,036
City of Signal Hill	$ 925	$ 944	$ -	$ 1,644	$2,588	$ 962	$ -	$ 8,586	$9,549
City of South El Monte	$ 1,484	$ 1,513	$ -	$ -	$1,513	$ 1,544	$ -	$ -	$1,544
City of South Gate	$ 5,913	$ 6,032	$ -	$ 11,186	$17,218	$ 6,152	$ -	$ 61,675	$67,827
City of South Pasadena	$ 1,853	$ 1,891	$ -	$ 6,135	$8,025	$ 1,928	$ -	$ 30,117	$32,045
City of Temple City	$ 2,453	$ 2,502	$ -	$ -	$2,502	$ 2,552	$ -	$ -	$2,552
City of Torrance	$ 10,726	$ 10,940	$ -	$ 27,403	$38,343	$ 11,159	$ -	$ 96,194	$107,353
City of Vernon	$ 886	$ 903	$ -	$ 7,163	$8,067	$ 922	$ -	$ 29,252	$30,173
City of Walnut	$ 2,998	$ 3,058	$ -	$ -	$3,058	$ 3,119	$ -	$ -	$3,119
City of West Covina	$ 8,013	$ 8,173	$ -	$ 22,176	$30,349	$ 8,337	$ -	$ 88,216	$96,553
City of Westlake Village	$ 1,350	$ 1,377	$ -	$ -	$1,377	$ 1,404	$ -	$ -	$1,404
City of Whittier	$ 6,733	$ 6,868	$ -	$ 8,960	$15,827	$ 7,005	$ -	$ 33,573	$40,578
County of Los Angeles	$ 320,481	$ 326,891	$ -	$ 1,221,526	$1,548,417	$ 333,428	$ -	$ 3,272,621	$3,606,050
Inglewood Unified School District	$ 473	$ 483	$ -	$ 1,085	$1,568	$ 492	$ -	$ 6,789	$7,281
Los Angeles Unified School District	$ 24,615	$ 25,107	$ -	$ 81,631	$106,738	$ 25,609	$ -	$ 404,757	$430,366
UCLA	$ 1,673	$ 1,707	$ -	$ 4,250	$5,957	$ 1,741	$ -	$ 14,979	$16,720
Total	$ 1,012,829	$ 1,033,086	$ -	$ 2,649,827	$3,682,912	$ 1,053,747	$ -	$ 9,340,190	$10,393,937

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Annual Costs - Scenario 12.8.2, Distributed by Average Daily Radios (LMR) and High Speed Units (LTE); Baseline Admin Cost Distributed by 50% Population/50% Geography; Hard Match Distributed by 50% Population/50% Geography	FY 2017/18				FY 2018/19				FY 20	
	JPA Operations	LMR	LTE	Total	JPA Operations	LMR	LTE	Total	JPA Operations	LMR
City of Agoura Hills	$ 2,487	$ -	$ -	$2,487	$ 2,536	$ -	$ -	$2,536	$ 2,587	$ -
City of Alhambra	$ 5,767	$ 2,541	$ 67,855	$76,162	$ 5,882	$ 15,233	$ 69,346	$90,462	$ 6,000	$ 14,949
City of Arcadia	$ 4,977	$ 4,628	$ 44,789	$54,393	$ 5,076	$ 27,746	$ 45,721	$78,543	$ 5,178	$ 27,228
City of Artesia	$ 1,163	$ -	$ -	$1,163	$ 1,187	$ -	$ -	$1,187	$ 1,210	$ -
City of Avalon	$ 721	$ 121	$ 2,207	$3,049	$ 736	$ 724	$ 2,232	$3,691	$ 750	$ 710
City of Azusa	$ 4,172	$ 1,236	$ 32,588	$37,997	$ 4,256	$ 7,411	$ 33,334	$45,001	$ 4,341	$ 7,273
City of Baldwin Park	$ 5,202	$ 2,011	$ 57,454	$64,666	$ 5,306	$ 12,055	$ 58,817	$76,177	$ 5,412	$ 11,830
City of Bell	$ 2,334	$ 381	$ 16,493	$19,208	$ 2,380	$ 2,285	$ 16,866	$21,532	$ 2,428	$ 2,242
City of Bell Gardens	$ 2,660	$ 1,677	$ 56,666	$61,002	$ 2,713	$ 10,054	$ 58,064	$70,831	$ 2,767	$ 9,866
City of Bellflower	$ 5,150	$ 1,270	$ -	$6,421	$ 5,253	$ 7,617	$ -	$12,870	$ 5,359	$ 7,474
City of Beverly Hills	$ 2,832	$ 10,086	$ 51,994	$64,913	$ 2,889	$ 60,476	$ 53,206	$116,571	$ 2,947	$ 59,347
City of Bradbury	$ 411	$ -	$ -	$411	$ 419	$ -	$ -	$419	$ 428	$ -
City of Burbank	$ 8,615	$ 24,593	$ 449,976	$483,185	$ 8,788	$ 147,458	$ 461,162	$617,408	$ 8,964	$ 144,705
City of Calabasas	$ 3,735	$ -	$ -	$3,735	$ 3,810	$ -	$ -	$3,810	$ 3,886	$ -
City of Carson	$ 8,244	$ 508	$ 7,254	$16,007	$ 8,409	$ 3,047	$ 7,441	$18,897	$ 8,578	$ 2,990
City of Cerritos	$ 4,184	$ -	$ -	$4,184	$ 4,267	$ -	$ -	$4,267	$ 4,353	$ -
City of Claremont	$ 4,291	$ 1,016	$ 16,748	$22,056	$ 4,377	$ 6,093	$ 17,084	$27,554	$ 4,464	$ 5,980
City of Commerce	$ 1,862	$ -	$ -	$1,862	$ 1,900	$ -	$ -	$1,900	$ 1,938	$ -
City of Compton	$ 6,916	$ 1,550	$ 18,226	$26,692	$ 7,055	$ 9,292	$ 18,543	$34,890	$ 7,196	$ 9,119
City of Covina	$ 3,794	$ 1,550	$ 28,630	$33,973	$ 3,870	$ 9,292	$ 29,282	$42,444	$ 3,947	$ 9,119
City of Culver City	$ 2,974	$ 10,417	$ 40,622	$54,013	$ 3,034	$ 62,456	$ 41,536	$107,026	$ 3,095	$ 61,290
City of Downey	$ 8,157	$ 5,843	$ 238,787	$252,787	$ 8,320	$ 35,037	$ 244,566	$287,923	$ 8,487	$ 34,382
City of Duarte	$ 1,792	$ 1,143	$ 7,254	$10,190	$ 1,828	$ 6,855	$ 7,441	$16,124	$ 1,865	$ 6,727
City of El Monte	$ 7,711	$ 889	$ 34,129	$42,730	$ 7,866	$ 5,332	$ 34,838	$48,035	$ 8,023	$ 5,232
City of El Segundo	$ 1,862	$ 1,368	$ 15,093	$18,323	$ 1,899	$ 8,204	$ 15,399	$25,502	$ 1,937	$ 8,051
City of Gardena	$ 4,159	$ 3,684	$ 261,707	$269,550	$ 4,243	$ 22,088	$ 268,250	$294,581	$ 4,328	$ 21,676
City of Glendale	$ 15,450	$ 1,016	$ 39,456	$55,923	$ 15,759	$ 6,093	$ 39,792	$61,645	$ 16,075	$ 5,980
City of Glendora	$ 5,297	$ 1,335	$ 39,763	$46,395	$ 5,403	$ 8,006	$ 40,668	$54,077	$ 5,511	$ 7,856
City of Hawaiian Gardens	$ 923	$ -	$ -	$923	$ 941	$ -	$ -	$941	$ 960	$ -
City of Hawthorne	$ 5,559	$ 2,261	$ 64,937	$72,757	$ 5,670	$ 13,558	$ 66,484	$85,712	$ 5,783	$ 13,304
City of Hermosa Beach	$ 1,289	$ 584	$ 16,701	$18,575	$ 1,315	$ 3,504	$ 17,074	$21,893	$ 1,341	$ 3,438
City of Hidden Hills	$ 404	$ -	$ -	$404	$ 412	$ -	$ -	$412	$ 420	$ -
City of Huntington Park	$ 3,603	$ 1,067	$ 40,781	$45,451	$ 3,675	$ 6,398	$ 41,750	$51,823	$ 3,748	$ 6,279
City of Industry	$ 2,205	$ -	$ -	$2,205	$ 2,249	$ -	$ -	$2,249	$ 2,294	$ -
City of Inglewood	$ 7,446	$ 1,728	$ 6,337	$15,510	$ 7,595	$ 10,359	$ 6,337	$24,290	$ 7,747	$ 10,165
City of Irwindale	$ 1,820	$ 38	$ 2,574	$4,432	$ 1,857	$ 225	$ 2,600	$4,681	$ 1,894	$ 221
City of La Canada Flintridge	$ 2,562	$ -	$ 725	$3,287	$ 2,613	$ -	$ 744	$3,357	$ 2,666	$ -
City of La Habra Heights	$ 1,397	$ 85	$ 1,890	$3,372	$ 1,425	$ 512	$ 1,907	$3,845	$ 1,453	$ 503
City of La Mirada	$ 3,974	$ -	$ -	$3,974	$ 4,054	$ -	$ -	$4,054	$ 4,135	$ -
City of La Puente	$ 2,725	$ -	$ -	$2,725	$ 2,780	$ -	$ -	$2,780	$ 2,835	$ -
City of La Verne	$ 3,080	$ 1,016	$ 5,282	$9,379	$ 3,142	$ 6,093	$ 5,282	$14,518	$ 3,205	$ 5,980
City of Lakewood	$ 5,925	$ -	$ -	$5,925	$ 6,044	$ -	$ -	$6,044	$ 6,164	$ -
City of Lancaster	$ 25,399	$ -	$ -	$25,399	$ 25,907	$ -	$ -	$25,907	$ 26,425	$ -
City of Lawndale	$ 2,080	$ -	$ -	$2,080	$ 2,122	$ -	$ -	$2,122	$ 2,164	$ -
City of Long Beach	$ 33,713	$ 28,805	$ 380,290	$442,807	$ 34,387	$ 172,707	$ 388,586	$595,680	$ 35,075	$ 169,482
City of Los Angeles	$ 285,119	$ 340,447	$ 2,809,168	$3,434,734	$ 290,822	$ 2,041,258	$ 2,868,825	$5,200,904	$ 296,638	$ 2,003,142
City of Lynwood	$ 4,540	$ -	$ -	$4,540	$ 4,631	$ -	$ -	$4,631	$ 4,724	$ -
City of Manhattan Beach	$ 2,558	$ 2,642	$ 42,808	$48,008	$ 2,609	$ 15,843	$ 43,796	$62,248	$ 2,661	$ 15,547
City of Maywood	$ 1,653	$ -	$ -	$1,653	$ 1,686	$ -	$ -	$1,686	$ 1,720	$ -
City of Monrovia	$ 3,405	$ 5,005	$ 38,477	$46,887	$ 3,473	$ 30,010	$ 39,316	$72,798	$ 3,542	$ 29,449
City of Montebello	$ 4,811	$ 5,144	$ 52,924	$62,879	$ 4,907	$ 30,843	$ 54,073	$89,823	$ 5,005	$ 30,267
City of Monterey Park	$ 4,607	$ 1,397	$ 22,369	$28,373	$ 4,699	$ 8,378	$ 22,742	$35,819	$ 4,793	$ 8,222

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Annual Costs - Scenario 12.8.2, Distributed by Average Daily Radios (LMR) and High Speed Units (LTE); Baseline Admin Cost Distributed by 50% Population/50% Geography; Hard Match Distributed by 50% Population/50% Geography	FY 2017/18				FY 2018/19				FY 20	
	JPA Operations	LMR	LTE	Total	JPA Operations	LMR	LTE	Total	JPA Operations	LMR
City of Norwalk	$ 7,308	$ -	$ -	$7,308	$ 7,454	$ -	$ -	$7,454	$ 7,603	$ -
City of Palmdale	$ 27,311	$ -	$ -	$27,311	$ 27,857	$ -	$ -	$27,857	$ 28,415	$ -
City of Palos Verdes Estates	$ 1,574	$ 358	$ 10,804	$12,736	$ 1,605	$ 2,149	$ 11,047	$14,801	$ 1,637	$ 2,109
City of Paramount	$ 3,723	$ -	$ -	$3,723	$ 3,797	$ -	$ -	$3,797	$ 3,873	$ -
City of Pasadena	$ 11,294	$ 15,244	$ 82,413	$108,951	$ 11,520	$ 91,400	$ 84,035	$186,954	$ 11,750	$ 89,693
City of Pico Rivera	$ 4,924	$ -	$ -	$4,924	$ 5,023	$ -	$ -	$5,023	$ 5,123	$ -
City of Pomona	$ 12,021	$ 5,030	$ 82,811	$99,862	$ 12,261	$ 30,162	$ 84,675	$127,098	$ 12,507	$ 29,599
City of Ranchos Palos Verdes	$ 4,639	$ -	$ -	$4,639	$ 4,731	$ -	$ -	$4,731	$ 4,826	$ -
City of Redondo Beach	$ 4,637	$ 4,446	$ 38,365	$47,449	$ 4,730	$ 26,658	$ 39,148	$70,536	$ 4,824	$ 26,160
City of Rolling Hills Estates	$ 1,076	$ -	$ -	$1,076	$ 1,098	$ -	$ -	$1,098	$ 1,119	$ -
City of Rosemead	$ 3,776	$ -	$ -	$3,776	$ 3,852	$ -	$ -	$3,852	$ 3,929	$ -
City of San Dimas	$ 4,204	$ -	$ -	$4,204	$ 4,288	$ -	$ -	$4,288	$ 4,374	$ -
City of San Fernando	$ 1,674	$ 635	$ 13,033	$15,343	$ 1,708	$ 3,808	$ 13,331	$18,848	$ 1,742	$ 3,737
City of San Gabriel	$ 2,841	$ 1,067	$ 41,113	$45,021	$ 2,898	$ 6,398	$ 42,045	$51,341	$ 2,956	$ 6,279
City of San Marino	$ 1,374	$ 432	$ 20,494	$22,300	$ 1,402	$ 2,590	$ 20,960	$24,951	$ 1,430	$ 2,541
City of Santa Clarita	$ 20,390	$ -	$ -	$20,390	$ 20,798	$ -	$ -	$20,798	$ 21,214	$ -
City of Santa Fe Springs	$ 2,474	$ 1,550	$ 34,777	$38,801	$ 2,524	$ 9,292	$ 35,616	$47,432	$ 2,574	$ 9,119
City of Santa Monica	$ 6,270	$ 26,042	$ 83,221	$115,532	$ 6,395	$ 156,141	$ 85,085	$247,621	$ 6,523	$ 153,225
City of Sierra Madre	$ 1,110	$ 635	$ 9,159	$10,905	$ 1,133	$ 3,808	$ 9,346	$14,287	$ 1,155	$ 3,737
City of Signal Hill	$ 982	$ 330	$ 8,820	$10,132	$ 1,001	$ 1,980	$ 9,025	$12,006	$ 1,021	$ 1,943
City of South El Monte	$ 1,574	$ 229	$ -	$1,803	$ 1,606	$ 1,371	$ -	$2,977	$ 1,638	$ 1,345
City of South Gate	$ 6,275	$ 2,541	$ 63,372	$72,188	$ 6,401	$ 15,233	$ 64,863	$86,498	$ 6,529	$ 14,949
City of South Pasadena	$ 1,967	$ 1,626	$ 30,923	$34,516	$ 2,006	$ 9,749	$ 31,632	$43,387	$ 2,046	$ 9,567
City of Temple City	$ 2,603	$ -	$ -	$2,603	$ 2,655	$ -	$ -	$2,655	$ 2,708	$ -
City of Torrance	$ 11,382	$ 25,864	$ 98,506	$135,752	$ 11,610	$ 155,075	$ 100,538	$267,223	$ 11,842	$ 152,179
City of Vernon	$ 940	$ 1,397	$ 29,995	$32,332	$ 959	$ 8,378	$ 30,647	$39,984	$ 978	$ 8,222
City of Walnut	$ 3,182	$ -	$ -	$3,182	$ 3,245	$ -	$ -	$3,245	$ 3,310	$ -
City of West Covina	$ 8,503	$ 8,733	$ 90,437	$107,673	$ 8,674	$ 52,362	$ 92,387	$153,423	$ 8,847	$ 51,385
City of Westlake Village	$ 1,432	$ -	$ -	$1,432	$ 1,461	$ -	$ -	$1,461	$ 1,490	$ -
City of Whittier	$ 7,145	$ 2,439	$ 34,400	$43,985	$ 7,288	$ 14,624	$ 35,127	$57,039	$ 7,434	$ 14,351
County of Los Angeles	$ 340,097	$ 208,054	$ 3,341,578	$3,889,728	$ 346,899	$ 1,247,452	$ 3,402,166	$4,996,518	$ 353,837	$ 1,224,159
Inglewood Unified School District	$ 502	$ 249	$ 6,980	$7,731	$ 512	$ 1,490	$ 7,149	$9,151	$ 522	$ 1,463
Los Angeles Unified School District	$ 26,121	$ 13,720	$ 415,620	$455,461	$ 26,644	$ 82,260	$ 425,165	$534,069	$ 27,176	$ 80,724
UCLA	$ 1,776	$ 16,413	$ 15,340	$33,528	$ 1,811	$ 98,407	$ 15,657	$115,875	$ 1,847	$ 96,569
Total	$ 1,074,822	$ 806,117	$ 9,565,115	$11,446,054	$ 1,096,319	$ 4,833,329	$ 9,762,746	$15,692,394	$ 1,118,245	$ 4,743,078

LA-RICS
Cash Flow Estimates
May 2014

Annual Costs - Scenario 12.8.2, Distributed by Average Daily Radios (LMR) and High Speed Units (LTE); Baseline Admin Cost Distributed by 50% Population/50% Geography; Hard Match Distributed by 50% Population/50% Geography	19/20		FY 2020/21			
	LTE	Total	JPA Operations	LMR	LTE	Total
City of Agoura Hills	$ -	$2,587	$ 2,639	$ -	$ -	$2,639
City of Alhambra	$ 73,584	$94,533	$ 6,120	$ 29,815	$ 74,616	$110,551
City of Arcadia	$ 48,370	$80,776	$ 5,281	$ 54,306	$ 49,015	$108,602
City of Artesia	$ -	$1,210	$ 1,235	$ -	$ -	$1,235
City of Avalon	$ 2,302	$3,762	$ 765	$ 1,417	$ 2,319	$4,501
City of Azusa	$ 35,453	$47,067	$ 4,428	$ 14,505	$ 35,969	$54,902
City of Baldwin Park	$ 62,690	$79,931	$ 5,520	$ 23,594	$ 63,632	$92,746
City of Bell	$ 17,926	$22,596	$ 2,477	$ 4,472	$ 18,184	$25,133
City of Bell Gardens	$ 62,037	$74,671	$ 2,822	$ 19,678	$ 63,005	$85,505
City of Bellflower	$ -	$12,833	$ 5,466	$ 14,908	$ -	$20,373
City of Beverly Hills	$ 56,650	$118,943	$ 3,006	$ 118,366	$ 57,488	$178,860
City of Bradbury	$ -	$428	$ 436	$ -	$ -	$436
City of Burbank	$ 492,950	$646,618	$ 9,143	$ 288,611	$ 500,687	$798,440
City of Calabasas	$ -	$3,886	$ 3,963	$ -	$ -	$3,963
City of Carson	$ 7,970	$19,538	$ 8,749	$ 5,963	$ 8,099	$22,811
City of Cerritos	$ -	$4,353	$ 4,440	$ -	$ -	$4,440
City of Claremont	$ 18,037	$28,481	$ 4,554	$ 11,926	$ 18,270	$34,749
City of Commerce	$ -	$1,938	$ 1,976	$ -	$ -	$1,976
City of Compton	$ 19,443	$35,758	$ 7,340	$ 18,187	$ 19,663	$45,189
City of Covina	$ 31,136	$44,202	$ 4,026	$ 18,187	$ 31,588	$53,801
City of Culver City	$ 44,132	$108,517	$ 3,157	$ 122,242	$ 44,764	$170,162
City of Downey	$ 260,990	$303,859	$ 8,656	$ 68,575	$ 264,987	$342,219
City of Duarte	$ 7,970	$16,562	$ 1,902	$ 13,417	$ 8,099	$23,418
City of El Monte	$ 36,851	$50,106	$ 8,183	$ 10,435	$ 37,341	$55,960
City of El Segundo	$ 16,267	$26,256	$ 1,976	$ 16,058	$ 16,479	$34,512
City of Gardena	$ 286,847	$312,850	$ 4,414	$ 43,232	$ 291,372	$339,019
City of Glendale	$ 40,746	$62,800	$ 16,396	$ 11,926	$ 40,978	$69,300
City of Glendora	$ 43,240	$56,607	$ 5,621	$ 15,670	$ 43,866	$65,157
City of Hawaiian Gardens	$ -	$960	$ 979	$ -	$ -	$979
City of Hawthorne	$ 70,881	$89,969	$ 5,899	$ 26,536	$ 71,952	$104,386
City of Hermosa Beach	$ 18,134	$22,913	$ 1,368	$ 6,857	$ 18,392	$26,617
City of Hidden Hills	$ -	$420	$ 429	$ -	$ -	$429
City of Huntington Park	$ 44,505	$54,532	$ 3,823	$ 12,522	$ 45,176	$61,521
City of Industry	$ -	$2,294	$ 2,340	$ -	$ -	$2,340
City of Inglewood	$ 6,337	$24,248	$ 7,901	$ 20,274	$ 6,337	$34,512
City of Irwindale	$ 2,672	$4,787	$ 1,932	$ 441	$ 2,690	$5,062
City of La Canada Flintridge	$ 797	$3,463	$ 2,719	$ -	$ 810	$3,529
City of La Habra Heights	$ 1,957	$3,913	$ 1,482	$ 1,003	$ 1,969	$4,454
City of La Mirada	$ -	$4,135	$ 4,217	$ -	$ -	$4,217
City of La Puente	$ -	$2,835	$ 2,892	$ -	$ -	$2,892
City of La Verne	$ 5,282	$14,467	$ 3,269	$ 11,926	$ 5,282	$20,477
City of Lakewood	$ -	$6,164	$ 6,288	$ -	$ -	$6,288
City of Lancaster	$ -	$26,425	$ 26,954	$ -	$ -	$26,954
City of Lawndale	$ -	$2,164	$ 2,207	$ -	$ -	$2,207
City of Long Beach	$ 412,162	$616,719	$ 35,776	$ 338,030	$ 417,900	$791,706
City of Los Angeles	$ 3,038,363	$5,338,143	$ 302,571	$ 3,995,236	$ 3,079,624	$7,377,430
City of Lynwood	$ -	$4,724	$ 4,818	$ -	$ -	$4,818
City of Manhattan Beach	$ 46,604	$64,812	$ 2,714	$ 31,008	$ 47,288	$81,010
City of Maywood	$ -	$1,720	$ 1,754	$ -	$ -	$1,754
City of Monrovia	$ 41,700	$74,692	$ 3,613	$ 58,736	$ 42,280	$104,629
City of Montebello	$ 57,339	$92,611	$ 5,105	$ 60,367	$ 58,134	$123,606
City of Monterey Park	$ 23,802	$36,816	$ 4,889	$ 16,398	$ 24,060	$45,347

LA-RICS
Cash Flow Estimates
May 2014

Annual Costs - Scenario 12.8.2, Distributed by Average Daily Radios (LMR) and High Speed Units (LTE); Baseline Admin Cost Distributed by 50% Population/50% Geography; Hard Match Distributed by 50% Population/50% Geography	19/20		FY 2020/21			
	LTE	Total	JPA Operations	LMR	LTE	Total
City of Norwalk	$ -	$7,603	$ 7,755	$ -	$ -	$7,755
City of Palmdale	$ -	$28,415	$ 28,983	$ -	$ -	$28,983
City of Palos Verdes Estates	$ 11,737	$15,483	$ 1,670	$ 4,205	$ 11,905	$17,781
City of Paramount	$ -	$3,873	$ 3,950	$ -	$ -	$3,950
City of Pasadena	$ 88,644	$190,087	$ 11,985	$ 178,891	$ 89,766	$280,642
City of Pico Rivera	$ -	$5,123	$ 5,226	$ -	$ -	$5,226
City of Pomona	$ 89,973	$132,078	$ 12,757	$ 59,034	$ 91,262	$163,053
City of Ranchos Palos Verdes	$ -	$4,826	$ 4,923	$ -	$ -	$4,923
City of Redondo Beach	$ 41,374	$72,358	$ 4,921	$ 52,177	$ 41,915	$99,013
City of Rolling Hills Estates	$ -	$1,119	$ 1,142	$ -	$ -	$1,142
City of Rosemead	$ -	$3,929	$ 4,007	$ -	$ -	$4,007
City of San Dimas	$ -	$4,374	$ 4,462	$ -	$ -	$4,462
City of San Fernando	$ 14,179	$19,658	$ 1,777	$ 7,454	$ 14,385	$23,616
City of San Gabriel	$ 44,694	$53,929	$ 3,015	$ 12,522	$ 45,339	$60,876
City of San Marino	$ 22,285	$26,255	$ 1,458	$ 5,069	$ 22,607	$29,134
City of Santa Clarita	$ -	$21,214	$ 21,638	$ -	$ -	$21,638
City of Santa Fe Springs	$ 38,000	$49,693	$ 2,626	$ 18,187	$ 38,580	$59,393
City of Santa Monica	$ 90,383	$250,131	$ 6,653	$ 305,606	$ 91,672	$403,931
City of Sierra Madre	$ 9,876	$14,768	$ 1,178	$ 7,454	$ 10,005	$18,637
City of Signal Hill	$ 9,608	$12,572	$ 1,042	$ 3,876	$ 9,749	$14,667
City of South El Monte	$ -	$2,983	$ 1,671	$ 2,683	$ -	$4,354
City of South Gate	$ 69,102	$90,580	$ 6,659	$ 29,815	$ 70,133	$106,608
City of South Pasadena	$ 33,645	$45,258	$ 2,087	$ 19,082	$ 34,135	$55,304
City of Temple City	$ -	$2,708	$ 2,762	$ -	$ -	$2,762
City of Torrance	$ 106,313	$270,334	$ 12,079	$ 303,519	$ 107,719	$423,316
City of Vernon	$ 32,501	$41,701	$ 998	$ 16,398	$ 32,953	$50,349
City of Walnut	$ -	$3,310	$ 3,377	$ -	$ -	$3,377
City of West Covina	$ 97,931	$158,163	$ 9,024	$ 102,486	$ 99,281	$210,790
City of Westlake Village	$ -	$1,490	$ 1,520	$ -	$ -	$1,520
City of Whittier	$ 37,193	$58,978	$ 7,583	$ 28,623	$ 37,696	$73,902
County of Los Angeles	$ 3,574,354	$5,152,350	$ 360,914	$ 2,441,566	$ 3,616,259	$6,418,739
Inglewood Unified School District	$ 7,628	$9,613	$ 533	$ 2,917	$ 7,744	$11,194
Los Angeles Unified School District	$ 452,292	$560,192	$ 27,720	$ 161,002	$ 458,893	$647,615
UCLA	$ 16,558	$114,974	$ 1,884	$ 192,606	$ 16,777	$211,267
Total	$ 10,324,397	$16,185,720	$ 1,140,610	$ 9,459,997	$ 10,461,085	$21,061,691

Executive Summary:

Project Overview

The Los Angeles Regional Interoperable Communication System (LA-RICS) is a modern collaborative effort of law enforcement, fire service, and health service professionals with the goal to provide a single, unified voice and data communication platform for all regional public safety agencies. When completed, LA-RICS will cover over 4,000 miles of diverse terrain and serve over 34,000 first responders working across 85 municipalities. LA-RICS will incorporate both a land mobile radio ("LMR") system and a wireless broadband data system. The LMR system will be a P25 digital, trunked system while the data system will be built using long term evolution ("LTE") wireless standards. LA-RICS will allow interagency coordination and response to routine, emergency, and catastrophic events.

A Joint Powers Authority ("Authority") has been established in January 2009, to engage in regional and cooperative planning and coordination of governmental services. The JPA Board includes 17 Directors who represent a cross-section of first responder stakeholders who all share in the decision-making process, and has responsibility for setting policy and providing oversight on behalf of the Authority's Members. The following details the recommended 2014-2015 LA-RICS Cash Flow.

LA-RICS CASH FLOW

Grant Funded Expenditures

Land Mobile Radio System (LMR). Expenditures reimbursable under the Urban Area Securities Initiative (UASI) and the State Homeland Security Grant Program (SHSGP).

Long Term Evolution (LTE). Expenditures reimbursable under BTOP.

- **Los Angeles County Project Team**
  Cost associated with salaries and employee benefits of project staff from various County of Los Angeles (County) departments who have been assigned to the LA-RICS project through a Master Agreement between the Authority and the County Chief Executive Office (CEO) and Memorandum of Understanding between the project staff home department and the Authority. Project staff provides support relating to daily operations of the project, including services listed below, illustrated in the LA-RICS organizational chart:
    - Fiscal
    - Accounting
    - Auditing
    - Administrative
    - Contracting
    - Grant Management
    - Operations
    - Technical
    - Engineering
    - Planning
    - Legal Counsel
    - Real Estate Negotiations

- **Travel & Training**
  Cost associated with project staff travel and training supporting the project goals and mission.

- **Supplies**
  Cost associated with supplies required for daily operations and needed to move and add more offices.

- **Admin and legal Contractors**

AGENDA ATTCHMENT 2

Cost associated with grant funded professional services agreements and contracts between the Authority and consultant for various services, including: LA-RICS Executive Director.

- **Miscellaneous**
  Cost associated with miscellaneous fees, including Utilities fees for testing each site and rental fees for use of public meeting facilities.

- **Capital Assets & Furniture**

  Cost associated with fixed asset purchases made by the Authority to support daily operations.

- **Other Charges**

  Includes expenditures for LA-RICS JPA Insurance and Commercial Property Insurance.

- **Lease, Tenant Improvements & other Services – Suite 100 & 200**

  Cost associated with Lease of LA-RICS office at 2525 Corporate Place, Suite 150 & 200, Monterey Park, CA 91754.

- **Contractors/Consultants & Misc. Services**

  This includes consultant fees project management, engineering, environmental studies, and construction.

Member Funded JPA Operation

Cost associated with non-grant funded salaries and employee benefits of project staff from various County of Los Angeles departments. In addition to project staff travel & training supporting the project goals and supplies required for daily operations. Also, cost associated with non-grant funded professional services agreements and contacts for various services, including Legal Services, Public Outreach, and Site Access Support. Includes also the cost associated with fixed asset, furniture purchase, LA-RICS JPA Insurance, Commercial Property Insurance, Lease of LA-RICS and other services.

Los Angeles Regional Interoperable Communications System (LARICS)
Recommended Operating Budget
Fiscal Year 2014-15

FINANCING USES	FY 2013-2014 BUDGET	FY 2014-2015 RECOMMENDED	VARIANCE
Grant Funded Expenditures			
Los Angeles County Project Team	**4,998,000**	**5,083,000**	**85,000**
BTOP Cash Match (1)		2,663,000	
UASI/SHSGP Grants		2,420,000	
Travel & Training	**200,000**	**150,000**	**-50,000**
BTOP		100,000	
UASI/SHSGP Grants		50,000	
Supplies	**150,000**	**130,000**	**-20,000**
BTOP		130,000	
Admin and Legal Contractors	**556,000**	**520,000**	**-36,000**
BTOP		307,500	
UASI/SHSGP Grants		212,500	
Miscellaneous * (2)	**20,000**	**50,000**	**30,000**
BTOP		50,000	
Capital Assets & Furniture	**150,000**	**100,000**	**-50,000**
BTOP		100,000	
Other Charges* (3)	**100,000**	**155,000**	**55,000**
BTOP		155,000	
Lease, Tenant Improvements & Other Services - Suite 100 & 200	**0**	**400,000**	**400,000**
BTOP		400,000	
Contractors/Consultants & Misc. Services	**135,260,000**	**167,642,000**	**32,382,000**
BTOP	84,975,000	127,015,000	
BTOP Cash Match (1)	7,000,000	13,406,000	
UASI	37,337,000	23,462,000	
SHSGP	5,948,000	3,759,000	
Total Grant Funded Expenditures (4)		**158,161,000**	
Member Funded JPA Operation			
Los Angeles County Project Team		**243,000**	
Travel & Training		**50,000**	
Supplies		**120,000**	
Admin and Legal Contractors		**100,000**	
Capital Assets & Furniture		**100,000**	
Lease,Tenant Improvements & Other Services - Suite 100 & 200		**400,000**	
Total Member Funded JPA Operation		**1,013,000**	
Total Financing Uses	**141,434,000**	**159,174,000**	**17,740,000**
FINANCING SOURCES			
Federal Grant Revenue	**141,434,000**	**158,161,000**	**16,727,000**
Member's Contribution	**0**	**1,013,000**	**1,013,000**
Total Available Financing	**141,434,000**	**159,174,000**	**17,740,000**
BTOP Cash Match	**0**	**16,069,000**	**16,069,000**

* (1) BTOP Cash Match will be provided by the County of Los Angeles as a loan until a Member financing solution is reached
* (2) Fees including utilites fees for testing each site, rental fees for Grace E. Simmons Lodge, etc.
* (3) Liability Insurance for LA-RICS JPA and Commercial Property Insurance
* (4) Excludes Cash Match

LA-RICS
FY 2014-2015

PROJECT SUPPORT STAFF		Yearly Costs (Salary & Employee Benefits)
DISTRICT ATTORNEY (DA)		
Fiscal Officer I		140,457
Administrative Deputy II		211,917
DA Total	**$**	**352,374**
TREASURER & TAX COLLECTOR (TTC)		
Senior Secretary III		92,027
TTC Total	**$**	**92,027**
PARKS & RECREATION (PR)		
Administrative Services Manager I		133,768
PR Total	**$**	**133,768**
PROBATION (PB)		
Administrative Services Manager I		136,410
Executive Assistant		179,800
PB Total	**$**	**316,210**
FIRE (FR)		
Senior Management Secretary III		112,383
FR Total	**$**	**112,383**
ISD		
Administrative Services Manager II		145,119
ISD Total	**$**	**145,119**
UNFILLED POSITIONS		
Administrative Services Manager I		136,410
Administrative Services Manager III		184,488
Accounting Officer II		121,004
Staff Assistant II (2)		184,303
Senior Secretary III		92,027
Unfilled total	**$**	**718,231**

PROJECT SUPPORT STAFF		Yearly Costs (Salary & Employee Benefits)
Auditor Controller (A/C)		
S&EB		
Principal Accountant		10,191
Supervising Accountant		14,655
Accountant III		5,265
Acouuntant II		30,262
S&S		
Travel Administrative Cost		500
Single Audit		50,000
A/C Total	**$**	**110,873**

LA-RICS
FY 2014-2015

County Counsel		
Principal/Senior County Counsel (4)		802,305
County Counsel Total	**$**	**802,305**

PROJECT SUPPORT STAFF		**Yearly Costs (Salary & Employee Benefits)**
Internal Services Department (ISD)		
Administrative Manager XIII		218,076
Sr. Telecom Systems Engineer (5)		512,280
Supervising Telecom System Engineer		188,451
ISD Total	**$**	**918,807**
LOS ANGELES COUNTY SHERIFF (LASD)		
S&EB		
Lieutenant (1)		244,997
Sergeant (2)		426,094
Deputy (4)		607,999
Operations Assistant III (1)		105,071
S&EB Total	**$**	**1,384,161**
S&S		
Human Resources & Procurement Services		40,000
Station B & Station On Wheel (SOW) MOU		200,000
LASD Total	**$**	**1,624,161**
Total of Los Angeles County Services	**$**	**5,326,000**

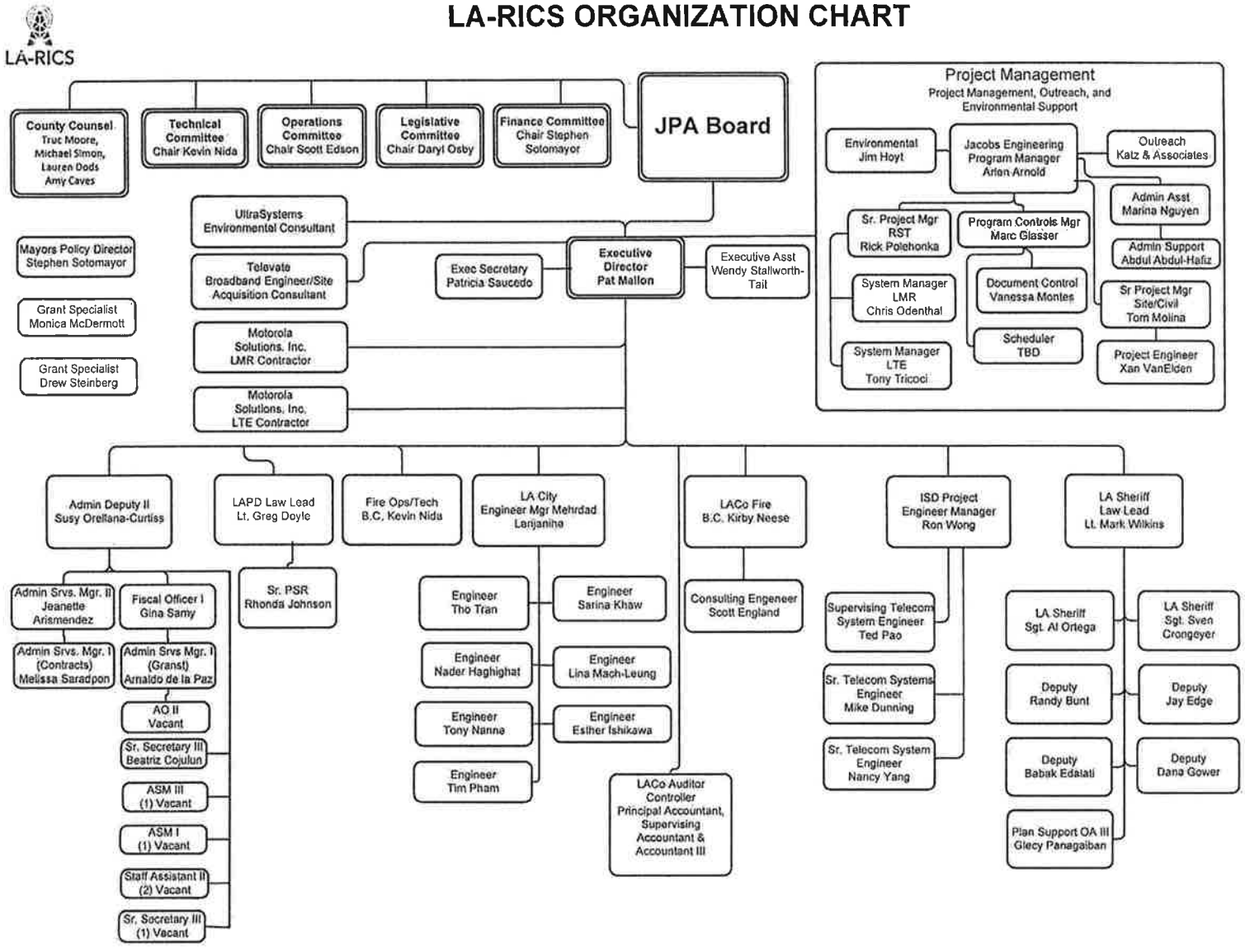
CONTRACTS
FY 2014-2015

ADMIN AND LEGAL CONTRACTORS	Maximum Contract Sum	Funding Source
Executive Director	215,000	50% BTOP & 50% LMR Grants
Legal Services	105,000	LMR Grants
MISC Contracts (CPA Firm / Audit Preparation)	100,000	100% BTOP
County DPW, CEO RED, Regional Planning	200,000	50% BTOP & 50%Member's Contribution
	620,000	

CONTRACTORS/CONSULTANTS & MISC. SERVICES	Maximum Contract Sum	Funding Source
Project Construction Management* **(1)**	3,836,000	BTOP
	3,000,000	SHSGP11
	250,000	SHSGP12
	509,000	SHSGP 13
	1,594,000	UASI 11
Broadband Engineering	2,190,000	BTOP
CEQA Environmental Consultant	335,000	BTOP
Telecommunications Contract* **(2)**	120,654,000	BTOP
	13,406,000	BTOP Cash Match
	5,235,000	UASI 10
	16,633,000	UASI 11
Total Grant Funded Expenditures	**$ 167,642,000**	

* (1) Amounts based on Jacob's Contract, Estimates & Projected Schedule
* (2) Amounts based on Motorola's Contract & Projected Schedule

LA-RICS ORGANIZATION CHART



AGENDA ATTCHMENT 2