Metro

Board Report

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2016-0181, **File Type:** Informational Report **Agenda Number:** 40.

REGULAR BOARD MEETING
MARCH 24, 2016

SUBJECT: COST/BENEFIT ANALYSIS OF METRO'S SUBSIDY TO METROLINK - UPDATE 2 - METRO INVESTMENT BASIS AND THE BENEFITS OF COMMUTER RAIL OPERATIONS IN LOS ANGELES COUNTY

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE report on the formula basis of determining **Metro's annual contribution to Metrolink operations** and the estimated benefits of those operations to Los Angeles County and its residents.

ISSUE

The purpose of this report is to provide the Committee an overview of the governance structure of the Southern California Regional Rail Authority (SCRRA), information on the calculation of Metro's investment in commuter rail operations in Los Angeles County, and an estimated summary of the benefits of that investment.

DISCUSSION

Summary of Governance Structure

Under the Joint Exercise of Powers Agreement (JPA) (Attachment A), the SCRRA was created by the Member Agencies to act on their behalf to design, construct, operate and maintain a regional commuter rail system in Southern California.

The JPA, with only 9 pages of narrative text, has limited specifics governing the interactions among the Member Agencies and with the SCRRA itself. However, two elements of the JPA are very specific and clear:

- The proportionate assignment of voting rights of the Member Agencies on the SCRRA Board of Directors; and
- The lack of authority of the SCRRA to commit any Member Agency to a financial obligation that the Member Agency does not support and approve.

Member Voting Rights

The number of votes assigned to each member agency is as follows:

Member Agency	Number of Votes on the Metrolink Board	% of the Board*
Los Angeles County Metropolitan Transportation Authority	4	36
Orange County Transportation Authority	2	18
Riverside County Transportation Commission	2	18
San Bernardino Associated Governments	2	18
Ventura County Transportation Commission	1	9
Total	11	

*To avoid extended decimal rounding, actual % values add to 99%

A quorum of the Board consists of two factors:

1) Representatives of a minimum of 3 counties;
and
2) A minimum of 6 combined votes.

For example, as shown above, though Metro and Orange County together comprise 6 votes, as only two counties, the minimum number of county representatives is not met to constitute a quorum. Further, Riverside, San Bernardino and Ventura representatives could be present, and while the three county minimum is met, the minimum required number of votes would not be available.

These values were determined at the agency's formation based on an original negotiation among the Member Agencies prior to the construction or operation of the system.

Under the current JPA, any change to this governance structure could be initiated by any Member Agency. However, the outcome of any such proposal is subject to negotiations and agreement by and among the Member Agencies.

The JPA states:

"**15.0 AMENDMENTS TO THE AGREEMENT**

This AGREEMENT may be amended at any time by the unanimous agreement of the voting MEMBER AGENCIES."

Previous Amendment

To date, the JPA has undergone one administrative amendment. In 1996, approximately 50% of the SCRRA's administrative and management staff were Metro employees, formerly of the LACTC. The amendment action formalized the transfer of these employees and positions from Metro to the SCRRA.

Financial Authority

The JPA makes very clear that prior to any commitment of funds by the SCRRA, each individual Member Agency shall approve their share of any proposed financial request.

It states in four individual sections the separation of financial authority between the Member Agencies and the SCRRA.

Referencing the SCRRA:

> *The SCRRA has the authority to **"recommend"** funding shares of the members for capital and operations.* (Sections 3.12, 3.13, emphasis added)

Referencing the Member Agencies:

> *"Each MEMBER AGENCY's Share of Capital and Operating Fund allocations, and Annual AUTHORITY Budget shall be approved by each MEMBER AGENCY."* (Section 4.4)
>
> *"Decisions dealing with capital and operating fund allocations, as well as annual approval of each MEMBER AGENCY'S share of the AUTHORITY'S annual budget, shall be approved by the MEMBER AGENCIES themselves."* (Section 8)
>
> *"..and any cost sharing formula adopted by the voting MEMBER AGENCIES."* (Section 9)

Though the JPA is silent on the actual formulas or variables used to allocate costs and revenues, as clearly articulated in the language above, it is the Member Agencies themselves that approve the various formula distributions and resulting member subsidy contributions through a negotiation and agreement among the partnership.

Adopted Budget Policy of the SCRRA

In addition to the clauses in the JPA outlined above, the published and SCRRA Board approved budget policy further codifies the financial relationship between the Member Agencies and the SCRRA:

> *In approving the proposed budget and any (SCRRA) Board-initiated amendments, the Board authorizes SCRRA to expend funds under the direction of the Chief Executive Officer consistent with:*
>
> - *Total amount appropriated for Train Operations and Maintenance of Way*
> - *Total amount appropriated for each capital rehabilitation and new capital project*
> - ***Individual Member Agency funding commitments***
> - *Total number of authorized positions*
>
> ***Metrolink published FY16 Budget; Page 19; Section 3.1.1 Budget Authorization (Emphasis Added)***

As illustrated, the JPA and other approved policies make clear that the SCRRA, its Board of Directors, and staff of the agency have no authority to obligate a Member Agency to any financial commitment an individual member does not support or is willing to approve. As such, any vote of the SCRRA Board that attempts to create a commitment is advisory in nature and is non-binding on the Member Agencies.

A recent example is the Metro Board's deferral of SCRRA's requested FY16 Rehabilitation and Renovation funding in the amount of $20 million.

Though proposed by Metrolink and approved by SCRRA's Board, Metro retained and exercised its authority to not adopt or approve the request. This deferral was initiated by Metro's Board in order to assure itself that previously approved yet unobligated and unspent funding was being directed towards the highest priority projects of the agency. Metro staff continues to work with our colleagues at the SCRRA to address this situation and only the Metro Board itself possesses the authority to appropriate and commit Metro funds to the SCRRA.

Metro's Investment in the Regional Commuter Rail System

As a result of its structure as a partnership, and as envisioned in the JPA, the SCRRA uses a series of formulas to ensure every financial transaction of the organization, be it expense or revenue, can ultimately be attributed to a, or multiple, member(s) through a Member Agency approved and agreed upon distribution.

Expenditures are divided into two primary modes - Capital Expenditures, including State of Good Repair (Rehabilitation), and Operating Costs including Maintenance of Way (MOW). Each of the modes have specific cost allocation methodologies in order to capture the required contribution(s) of the Member(s).

Assignment of Capital Obligations

The assignment of capital obligations uses two primary methods. The first is based primarily on an asset ownership and location basis.

For example, the Member Agency owner of a fixed asset, generally Rights-of-Way (ROW), is responsible for the State of Good Repair expenditures related to that asset.

Specific Capital Expansion projects that add physical capacity or betterments to the infrastructure within its jurisdiction have also generally been the responsibility of the requesting Member Agency. Examples of these types of projects include double-track projects and station and grade crossing enhancements.

The second allocation method applies to shared facilities or systemwide assets such as IT or Communications systems infrastructure, revenue vehicles, or maintenance facilities, etc., is the application of the "All-Share" formula. This formula is a combined weighted average (1/3, 1/3, 1/3) of Route Miles, Stations, and Boardings within each county. Metro's share of this formula is 47.5%.

However, the current values All-Share formula have not been updated for over 17 years and are outdated and stale. This specific formula is currently subject to an ongoing review, and staff expects that once the update is completed, Metro's share should decline between 2% and 3%. On an annual basis, this change would result in reducing Metro's Rehabilitation and Capital costs between $500 thousand and $1 million depending on the mix of selected projects.

The table below illustrates the distribution of the Proposed SCRRA FY16 Budget capital projects divided into the categories listed above.

SCRRA FY16 Proposed Capital Budget*			
($000)	**Total**	**Metro $**	**Metro %**
Rehabilitation Projects – Location Basis	59,556	15,128	25.4%
New Capital Projects - Location Basis	33,070	33,070	100.0%
Subtotal - Location Basis	92,626	48,198	52.0%
Rehabilitation Projects – Systemwide	92,631	33,203	35.8%
New Capital Projects – Systemwide	162,654	17,127	10.5%
Subtotal – Systemwide Capital	255,285	50,330	19.7%
Total Proposed FY16 Capital Program	347,911	98,528	28.3%

(*The SCRRA's proposed FY16 request for New Rehabilitation program funding ($20M) was deferred by Metro's Board. Figures are for illustration.)

<u>Assignment of Operating Costs and Revenues</u>

The SCRRA groups Operating Expenses and Revenues, including Train Operations and Maintenance of Way (MOW), into a functional based structure to assign costs and revenues and present information to the Member Agencies.

As detailed below and in the attached information, the single largest component of the various formula options to assign those costs and revenues is based on location - miles of service operated within a county or ROW owned by a member agency. In any given year, between 80% and 90% of expenses and revenues are distributed through some form of mileage based allocation.

Staff is concerned that the use of mileage as such a large component of the allocation of costs may not represent the most balanced and equitable measure of the benefits that accrue to each Member Agency and supporting county.

On a systemwide basis, approximately 55% of all train miles are operated in Los Angeles County, and the county's route miles are approximately 48% of the system. However, according to Metrolink's data, approximately 38% of the riders are from Los Angeles County and 44% of the stations are in Los Angeles County.

Staff believes additional weight should be considered for other potential variables. One potential example could be accessibility to an Operating Line. For example, on the Orange County Line, of the 14 stations on the line segment, only 3 are located in Los Angeles County, including LAUS, a total 21%. However on a mileage basis, approximately 30% of the operating Train Miles of the Orange

County Line are within Los Angeles County.

Within the current budget, a 1% change in Metro's aggregate cost allocation equals approximately $1.25 million.

Expenses

As discussed above, identified individual functional groupings include items such as Train and Engine Crews; Maintenance of Equipment; Marketing; Fuel; Staff Costs; Facilities Maintenance, etc. (For a listing of the detailed functional listing of activities please see *Attachment B - Exhibit 3.7 - FY2015-16 Annual Operating Budget Distributions to Member Agencies)*

Each function is then allocated to Member Agencies based on an agreed distribution formula. However, the current Train Operations budget requires approximately 25 to 27 separate formulas and leads to significant confusion and difficulty in managing the daily operations of the agency. MOW expenses are further subject to their own additional allocations. (For a listing of various actual formula allocations and the associated variables as included in the FY16 Budget, please see *Attachment C - SCRRA Budget Line Item Allocations and Attachment D - FY2015-16 Formulae Used to Allocate Expenses by Member Agency)*

The two largest mileage components are Train Miles Operated within a county and Route Miles located within a county.

> Train miles represent the number of miles operated either 1) within a Member Agency's county of jurisdiction on all lines or 2) miles operated on a particular line segment. For example, the number of miles operated in Los Angeles County, or the number of miles operated on the Inland Empire-Orange County Line. A Train Mile equals one train traveling one mile.
>
> A route mile represents a one mile length of an operating line segment without regard to the number of tracks, direction of operation, or levels of service.

Functions	Total FY16 (Mil)	Metro's Share (Mil)	Metro % as Share of Function
Train Operations Expenses	198.1	101.6	51.3%
MOW Expenses	42.4	23.8	56.0%
Total Allocated Expenses	240.5	125.3	52.1%

The completion of the allocation of costs provides a level of gross investment for each member agency.

Revenues

Similar to expenses, revenues are subject to their own independent series of allocations. The SCRRA receives revenues from Fares from passengers, Dispatching and Maintenance revenues from the freight railroads and Amtrak, and other minor miscellaneous revenues

Fare Revenues are further subject to a dual allocation process. Revenues are first recorded on an Operating Line the ticket was purchased for, and then allocated to the Member Agencies participating on that segment on the basis train miles operated in each county.

For example, a ticket from El Monte to Los Angeles Union station is recorded on the San Bernardino line. That revenue is then split between LA Metro and SanBag, approximately 60%/40% respectively, the miles in Los Angeles County versus the miles in San Bernardino County.

Listed below are selected illustrations of the Fare Revenue distribution methodology.

Selected Examples of Fare Revenue Distributions (FY16 Metrolink Budget):

Operating Line	FY16 Fare Revenue (000)	% Miles in LA County	% Miles in San B. County	% Miles in Orange County	Allocated Revenues LA Metro	Allocated Revenues SanBag	Allocated Revenues OCTA
San Bernardino Line	21,052	59.82%	40.18%	0.0%	12,593	8,459	0
Antelope Valley Line	10,643	100.0%	0.0%	0.0%	10,643	0	0
Orange County Line	19,124	30.50%	0.0%	69.5%	5,833	0	13,291

As shown above, Fare Revenues are not earned on a systemwide basis in support of the entire operations. They are earned by specific Operating Lines based on the Origin and Destination of the ticket and credited to the Member Agencies on the basis of Train Miles on the line operated within each county.

MOW and Dispatching revenues from the freights and Amtrak are credited to the owner of the Right of Way where the billed operations occur and are based on rates specified in the various operating and purchase and sales agreements.

Functions	**Total FY16** (Mil)	**Metro's Share** (Mil)	**Metro % as Share of Function**
Fare Revenues	84.4	42.9	50.8%
MOW Revenues	14.3	9.3	64.8%
Other Revenues	2.7	1.4	50.9%
Total Revenues	101.5	53.5	52.8%

Member Agency Subsidies

It is only after the independent allocation of expenses and revenues discussed above that a Member Agency subsidy is determined.

In Metro's case, the operating subsidy for FY16 is:

Functions	Total FY16 (Mil)	Metro's Share (Mil)	Metro % as Share of Function
Total Allocated Expenses	240.5	125.3	52.1%
Total Allocated Revenues	101.5	53.5	52.8%
Net Subsidy	139.1	71.8	51.6%

As shown in the table(s) above, the impacts of various formula applications result in Metro receiving a different percentage of each cost and revenue component.

Findings Related to Expense and Revenue Allocations

With one variable, Train Miles, playing such a large role in the allocation of expenses, staff is concerned that the distribution of costs among members may not align with the benefits of Metrolink realized by each member.

These differing allocations and interdependent formula impacts make it very difficult for Member Agencies to predict the long run potential cost and subsidy requirements of additional services. As a result, the costs impacts on a particular Member Agency resulting from service expansion or contraction are completely dependent on the actions of the other Members of the partnership.

Staff is seeking to work with our partner agencies to address the allocation of expenses and revenues to:

1. Ensure an equitable measure of benefits is reflected in the cost allocations to Member Agencies; and
2. Provide for a predictable rate of future change that allows individual Member Agencies to plan for the future

Summary of Estimated Benefits of Commuter Rail Operations

Metrolink operations within Los Angeles County provide a number of directly measurable and additional indirect benefits to the residents and visitors to the county including State and Federal formula funds, Congestion Relief and Environmental benefits, and economic returns to major destinations.

State and Federal Formula Funds

Direct benefits to Los Angeles County of Metrolink Operations include the allocation of State and Federal formula funds to the county:

Federal Funds (FY's 10 to 15):	$268.9 million
State STA Funds (FY's 10 to 15):	$ 26.1 million

Total Direct Formula Funds: $295.0 million

Additionally, our partner agencies collectively received an additional $278.2 million in federal formula funds during the period.

Congestion Relief Benefits

According to Metrolink's passenger survey, approximately 82% of all Metrolink riders have an automobile available to make the trip. The use of Metrolink by these riders removes between 25,000 and 30,000 vehicle trips per day on the region's freeway system.

It is estimated that Metrolink Operations divert between ½ and 1 lane of vehicle traffic on parallel freeways during the peak period in the peak direction of travel. With current freeway levels of service (LOS) in Los Angeles County at or exceeding capacity during the peak period, the relatively minor addition of single-occupant vehicles may have significant impacts on congestion in and around Los Angeles County.

Environmental Benefits

Metrolink helps save over 22 million gallons of fuel each year, reducing carbon dioxide emissions by over 178,000 metric tons of carbon dioxide.

Metrolink is the first commuter rail system in the country to procure Tier 4 locomotives. Once operational, these Tier 4 locomotives are expected to reduce particulate matter and nitrogen oxide emissions by more than 85 percent compared to current Tier 0 locomotive engines, with 31 to 57 percent more horsepower, allowing for greater operational flexibility, capacity and reliability.

Other Benefits

Metrolink is among the first in the nation to develop and implement an operational Positive Train Control (PTC) system, the life-saving system that is designed to prevent train accidents.

Metrolink was an early leader in the development and implementation of quiet zones in a metropolitan environment, reducing the impact of train operations on surrounding communities.

With LAUS as the single largest destination within the system, with 68%, or 29,000, of all trips beginning or ending at the station, approximately 15,000 individuals per day make their way into Downtown Los Angeles which results in approximately 9,900 trips per day on Metro Rail and expands the labor market for Los Angeles County jobs.

As discussed in the previous committee meeting, Metrolink's Antelope Valley Line is increasingly serving as a vital link for transit dependent individuals with an estimated 34% of the riders on the line not having access to an automobile to otherwise complete their planned journey.

Finally, between 500 and 600 Metro employees use the Metrolink commuter rail system on a monthly basis to provide their daily commute.

Summary of Findings

- LA Metro is the largest partner within the Metrolink commuter rail operating system.
- Metrolink is providing a key service to Transit Dependent individuals on the Antelope Valley Line and increasingly on the San Bernardino Line.
- Metrolink's overall cost performance is in line with the commuter rail industry.
- Metrolink provides measurable financial and environmental benefits to Los Angeles County and Southern California.
- Metrolink's lack of revenue growth is exerting significant pressure on member agencies local resources.
- The basis for determining each member's level of investment is complicated, somewhat unpredictable, creates uncertainty, and may not allocate costs in a manner consistent with the benefits provided.
- Metrolink does not have the authority to create a financial obligation on behalf of any Member Agency without prior approval.
- A significant amount of the SCRRA's budget (80%-90%) is allocated on some form of mileage based allocation
- Changes in the relative weighted percentage of miles and an increased emphasis on variables measuring benefits could result in a more balanced formula from Metro's perspective.

FINANCIAL IMPACT

There is no Financial or Budget Impact should the Committee choose to Receive and File this report.

ALTERNATIVES CONSIDERED

None. This report implements a Board directed initiative.

NEXT STEPS

- In light of the findings of the Cost/Benefit Analysis, staff will seek an independent review of the cost and revenue allocation formulas to determine how they can more closely align Metro's contribution to commuter rail operations with the benefits received by LA County.

- Work with our Member Agency partners to review and potentially revise the allocation and formula structures.

- Provide the Committee additional information as requested.

- Continue to provide ongoing updates to the Finance, Budget, & Audit Committee and the Board as appropriate.

ATTACHMENTS

Attachment A - *Joint Exercise of Powers Agreement (JPA)*
Attachment B - *Exhibit 3.7 - FY2015-16 Annual Operating Budget Distributions to Member Agencies*
Attachment C - *Line Item Allocation Variables*
Attachment D - *FY2015-16 Formulae Used to Allocate Expenses by Member Agency*

Prepared by: Drew Phillips, Director, Budget, (213) 922-2109

Reviewed by: Nalini Ahuja, Executive Director, Finance & Budget, (213) 922-3088

Phillip A. Washington
Chief Executive Officer