

ADVANCED METER INFRASTRUCTURE

FEBRUARY 18, 2020



WHAT IS AMI?

AMR	AMI
<ul style="list-style-type: none">● UTG Technology● 15 Minute Reads● 3rd Party Meter Interoperable● Leak Alerts● Time Stamped Data● Monthly Reads	<ul style="list-style-type: none">● UTG Technology● 15 Minute Reads● 3rd Party Meter Interoperable● Immediate Leak Alerts● More Precise Time Stamped Data● Redundant Data Acquisition Modes● Real Time Network Monitoring● Hourly Reads● Licensed Frequency● 2-Way Communication<ul style="list-style-type: none">● On Demand Readings● OTA Remote Firmware Upgrades● OTA Unit Programming



AMI EQUIPMENT



PROVEN TECHNOLOGY



Santa Clarita Valley Water



CURRENT PROCESS

- **Currently manually read approximately 13,500 water customers through bi-monthly billing.**
- **Included is “meter checks” due to high bills and potential leaks.**
- **No “real-time” data.**



BENEFITS OF AUTOMATED METERS

- **“Real Time” data**
 - **Leaks**
 - **Tampering**
 - **Backflow**
- **Minimizes water loss**



SAVE ME!



UNDER-THE-GLASS TECHNOLOGY

Typically no wires or antenna needed

Safer than manual reading and AMR

Dedicated data signal

20-Year warranty

Utilization of meters less than five years old



450 MHz Licensed Spectrum

Protected Spectrum



450 MHz

- Increased Range
- Fewer Network Elements

Licensed

- Low RF interference
- Long Term Network Protection



UTILITY CONTROL CENTER-DASHBOARD

- Reception quality
- Total Consumption (and rainfall comparison)
- Consumption map
- Alerts and critical alerts

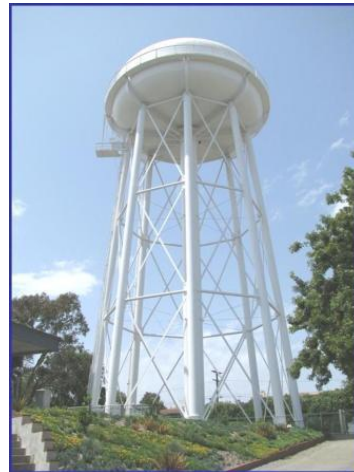


CUSTOMER PORTAL

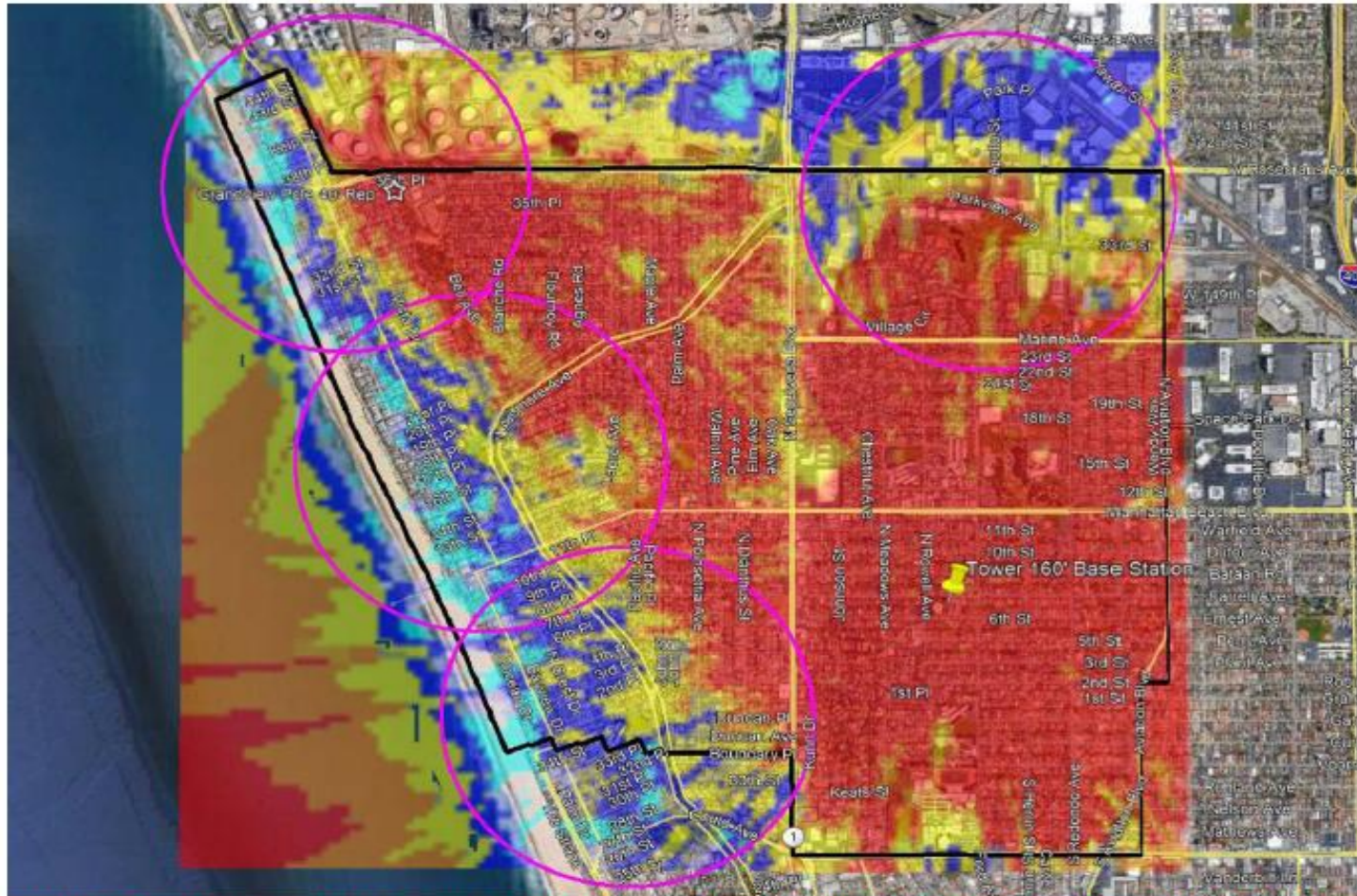


AMI RESEARCH





- **Conducted vendor evaluations.**
- **Received vendor presentations from leading manufacturers.**
- **Surveyed surrounding cities.**
- **Pilot tested.**







Manhattan Beach, CA



Legend:

-  Base Station
-  Repeater
-  Repeater – Need location for repeater in center of circle
-  Meter

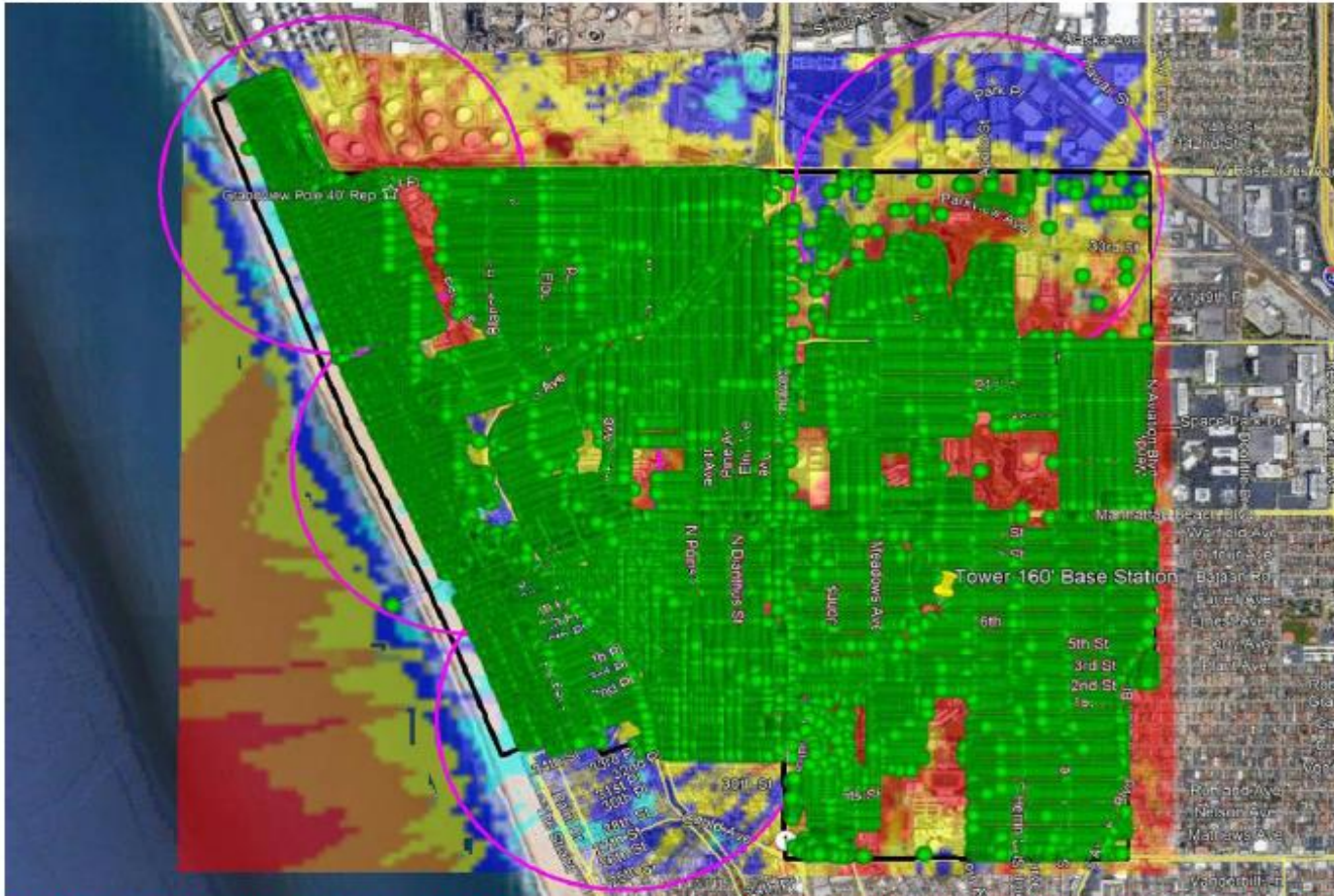
Signal:

	
Best	Better
	
Good	Below Average





**Utility to confirm meter service locations and/or service area to be covered. Propagation study based on addresses and/or service area boundaries provided by city/utility and geocoded by Master Meter.
 *Propagation Study/Quote may use existing towers/tanks/infrastructure. If at time of installation infrastructure no longer exists, utility to pay an additional fee for tower installation.
 Base Station Antennas MUST be installed at heights indicated on prop study to receive results as indicated above. Any change in height can result in different radio signal strength and read rate results.







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MASTER METER AMI SYSTEM PROMO & STANDARD PRICING COMPARISON

Quantity	Description	Part Number	Standard Pricing	Standard Extended	Beginning Order 10,000ea Enpoint Promotional Pricing	Promotional Extended		
1. Allegro Infrastructure								
2	Allegro Base Station (Collector) - Range TBD - Uses Existing Infrastructure <i>*Utility to provide tower or other suitable infrastructure for base station and antenna installation. Power must be provided at base station location. Tower must be a minimum height of 70' with 360 degrees of unobstructed line of sight.</i>	199-916-XX	\$ 34,546.88	\$ 69,093.75	Included	\$ -		
2	Installation of Tower Base Station and Antenna w/configuration	RHS-ALL-F-INB	\$ 16,406.25	\$ 32,812.50	Included	\$ -		
2	FCC License Application Fee for 1							
2. Harmony AMI Software								
2	New Tower for Base Station - No <i>*Price quoted is only budgetary. Final price subject to change.</i>	1	Harmony Enterprise Management Software (MDM)	RSS-HAR-A-MDM	\$ 12,343.75	\$ 12,343.75	Included	\$ -
2		1	Harmony Billing System Integration	RSS-HAR-A-BSI	\$ 6,500.00	\$ 6,500.00	Included	\$ -
6	Standard Repeaters <i>*Utility to provide suitable infrastructure for traffic or streetlights or storm sirens. Etc **Number of repeaters needed could change</i>	1	Harmony Software System Training (Up to 3 Days)	RSS-HAR-A-TR3	\$ 6,750.00	\$ 6,750.00	\$ 3,500.00	\$ 3,500.00
6	External Antenna (Omni 450-470Mhz)	1	Optional: Customer Engagement Bundle <i>Access to My Water Advisor Mobile App and MWA Online Customer Portal. Includes Training Price when purchased with Harmony MDM</i>	RSS-MWA-B	\$ 8,750.00	\$ 8,750.00	\$ 8,750.00	\$ 8,750.00
6	LMR400 Cable Assembly	1	Backup Allegro Mobile Laptop System and Harmony Mobile Software	00-060-102-HMY	\$ 11,361.94	\$ 11,361.94	Included	\$ -
1	Repeater Installation (standard rate)						Included	\$ -
5	Repeater Installation (standard rate)							
					2. Subtotal	\$ 34,343.75	2. Subtotal	\$ 12,250.00
3. Annual Maintenance (After First Year, To be billed direct by Master Meter) <i>(All Items to be billed directly from Master Meter Systems to Utility):</i>								
1	Pre-Implementation Site Visit (incl <i>**Installation of first repeater, if all repeaters installed ***Installation of additional repeaters, if all repeaters installed</i>	2	Base Station Annual Maintenance <i>**Covers one Base Station & up to three standard/solar Repeaters</i>	RHS-ALL-F-BS-SS	\$ 5,000.00	\$ 10,000.00	\$ 5,000.00	\$ 10,000.00
6	Annual Maintenance Repeater exceeding those covered with Annual Allegro			RHS-ALL-F-BS-ALCSS	\$ 350.00	\$ 2,100.00	\$ 350.00	\$ 2,100.00
16000	Harmony Fixed Base Annual Hosting/Support <i>Note: If the Allegro endpoints installed is under 10,000 with a minimum 2,500ea charge would be \$1.54 per endpoint Annually.</i>			RSS-HAR-F-110	\$ 1.23	\$ 19,600.00	\$ 1.23	\$ 19,600.00
					5. Subtotal	\$ 31,700.00	5. Subtotal	\$ 31,700.00

Special Instructions: Quoted quantities per Propagation study completed and approved by Master Meter. Propagation study completed using information provided by Utility and/or Distributor and plotted by Master Meter. Utility to review and approve completed and approved Prop Study, as installation of AMI System will proceed according to data plotted. If any data is incorrect, Utility to provide Master Meter with edits needed. Repeater installation (RHS-ALL-F-INR) price drop if more than one repeater installed without requiring additional rental of bucket truck or other equipment needed for installation. Customer Engagement Portal pricing applies when purchased with Harmony MDM. Price increases when purchased separately.

Standard Total \$ 164,875.00	Promo Total \$ 12,250.00
New Tower for Base Station pricing subject to change.	New Tower for Base Station pricing subject to change.



MASTER METER AMI SYSTEM PROMO & STANDARD PRICING COMPARISON (CONT'D)

Quantity	Description	Part Number	Standard Pricing	Standard Extended	Promotional Pricing	Promotional Extended	Difference	
Allegro UTG Meter and Registers								
1142	5/8x3/4" BLMJ Meter with UTG Allegro Register Cu/ft.	B12-A31-B15-0101A-1	\$ 227.05	\$ 259,291.10	\$ 185.00	\$ 211,270.00	\$ 48,021.10	
6560	3/4x7-1/2" BLMJ Meter with UTG Allegro Register Cu/ft.	B13-A31-B15-0101A-1	\$ 242.65	\$ 1,591,784.00	\$ 200.00	\$ 1,312,000.00	\$ 279,784.00	
0	3/4x9" BLMJ Meter with UTG Allegro Register Cu/ft.	B14-A31-B15-0101A-1	\$ 268.50	\$ -	\$ 215.00	\$ -	\$ -	
3422	1" BLMJ Meter with UTG Allegro Register Cu/ft.	B16-A31-B15-0101A-1	\$ 307.60	\$ 1,052,607.20	\$ 250.00	\$ 855,500.00	\$ 197,107.20	
488	1-1/2" MS Multi-Jet Meter with UTG Allegro Register Cu/ft.	M21-A00-B15-0101A-1	\$ 494.26	\$ 241,198.88	\$ 494.26	\$ 241,198.88	\$ -	
200	2" MS Multi-Jet Meter with UTG Allegro Register Cu/ft.	M23-A00-B15-0101A-1	\$ 640.28	\$ 128,056.00	\$ 640.28	\$ 128,056.00	\$ -	
1528	UTG Allegro Register Cu/ft for existing compatible bayonet style meters	199-070-02-06	\$ 188.15	\$ 287,493.20	\$ 150.00	\$ 229,200.00	\$ 58,293.20	
				Subtotal	\$ 3,560,430.38	Subtotal	\$ 2,977,224.88	\$ 583,205.50
						w/Tax	\$ 3,260,061.24	

Total Savings: \$735,580.50



QUESTIONS

