

California Energy Commission Enabling Technologies Workshop

One-Way Communications Overview

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One-Way Communications Technologies

- FLEX Paging
- FM RDS
- SMS/Cellular
- Satellite Radio

One-Way Communications Characteristics

- One-way wireless messaging with no return message confirmation
- Widely used for audio and data content delivery
- Mature "plug-in" and "turn-on" technologies
- Point to multi-point with wide coverage areas
- Does not require a meter, home network or internet connection
- Low cost alternatives to two way systems



FLEX Paging

- Provides one-way communication from a paging provider to a pager receiver or device
- Messages delivered by transmitters and satellite
- Addressable with good building penetration
- Currently only used by niche markets, including utility applications
- Limited coverage in rural areas
- Uses proprietary protocol owned by Motorola
- BOM costs are \$5.00 to \$10.00



FM RDS

- One-way communication from a FM radio station to a RDS receiver
- Open global standard widely used in auto industry
- Good building penetration and remote area coverage
- Secure messages delivered with minimal latency
- Redundancy allows messaging during power outages
- Inside numerous devices and over 20 million vehicles
- Limited utility industry use cases and installations
- BOM costs are less than \$5.00



SMS/Cellular

- One-way or two-way delivery of messages via cellular telephone infrastructure
- Analog and digital formats supported
- Open global standard
- Typically requires a subscription agreement
- Widely used in auto industry for messaging and telematics
- Wide signal coverage with addressability features
- Not widely used in utility industry applications



Satellite Radio

- Digital one-way communication from a satellite to a receiver
- Audio and data content delivery supported
- Requires a monthly subscription service
- Offers nationwide coverage and addressability
- Poor building penetration, must have direct line of sight to satellite
- Proprietary technology
- Not currently used in utility industry applications



Thank you

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