Long Term Charging Plans
Vicki Learn - IndyGo

- Director of Fleet Services & Inventory Control
- Been with IndyGo since 2009
- Received a $10M Tiger Grant to start the Electric Vehicle Program in 2012
- Put Remanufactured Long Range Electric Buses in Service in 2014
• 31 Bus Routes
• ~ 10 Million Passenger Trips Annually
• Over 500 IndyGo Employees
• 159 Fixed Route Diesel, Hybrid, & Electric Buses
• 31 Fully Electric 60 Foot BRT Buses On Order
INFRASTRUCTURE

• KNOW YOUR FACILITY FOOT PRINT RESTRICTIONS
• 5 YEAR PLANS ARE **INSUFFICIENT** FOR A 12 YEAR BUS
• LOOK AT YOUR 12 YEAR GROWTH PLAN OVERALL
• PREPARE A CHARGING REDUNDANCY PLAN
• YOUR POWER COMPANY NEEDS TO HELP YOU PLAN
Bus Options

• Long Range
• Short Range
• In-Route Charging
• Inductive Charging
• End of Line Charging
CONSIDERATION DESIGNS

• DEVELOPING BUS RFP’S WITH POSSIBLE FUTURE CHANGES
• TECHNOLOGY KEEPS CHANGING
• BUS MARKET IS RAPIDLY GROWING WITH NEW AND/OR IMPROVED OPTIONS, ESPECIALLY FOR SAFETY
**Disrupters**

- **Next Big Disrupter Will Be Autonomous Vehicles**
- **Five Years Is The Next Achievable Goal For Transit Industry With Autonomous Buses**
- **BRT Auto-Docking Will Be A Big Plus For Efficiency**
- **Labor Shortages Are Reaching Critical Impacts To All Agencies/Authorities**
Lessons Learned

- Be proactive with your utility company prior to jumping in with both feet
- Employee buy-in is critical for a successful program
- Building footprint needs to be recognized prior to implementation.
- Consider overall space needs for both inside or outside prior to implementation
- Scalable programs work the best with small to mid-sized fleets