

Albuquerque Square Dance Club, Inc.
A Non-Profit Corporation
Meeting of the Board of Directors
August 21, 2018

Members present: Margaret Bolshaz, Jerry Gilbreath, Alice LaCelle, Lin Miller, Sheri Pastian, Lorraine Pratt, Bob Stevens, Dee Taylor. **Absent:** Cecilia Pounds. **Guest speaker:** Ed Carr.

Call to order at 5:15 p.m.

Lin has a **donation to the Hall from Bill Randell**, who handed him a \$100 bill at Hot August Nights. Lin gave this to Sheri to deposit. Bill is not local, but appreciates our Hall.

This is a special meeting to consider changing Hall lighting from florescent to LED. Guest Ed Carr will provide info on LED lighting and changeover costs. Ed Carr did not arrive until 5:25, so meanwhile we discussed our own ideas about LED lighting.

- Jerry and Bob are interested in changing to LED to **save on power bills, take advantage of PNM's rebate program, and to change over before florescent bulbs become unavailable** or we have to change to a more expensive type of bulb.
- **Alice is concerned about the effect LED lighting has on the eyes and reported sleep problems.** Alice presented several reports on these negative affects of LED. Lorraine said those studies are not recent. Alice said she continues to read about the same concerns in current news, and that there is a very recent and highly technical report about LED damage to the retina. It is suspected that LED might contribute to macular degeneration. Some people are more bothered than others, and Alice finds that exposure to LED light at night does cause her problems going to sleep.
- **Jerry** uses some LED lighting at home and is having LED installed at his business and **has not experienced any problems.** He uses his computer and phone often, which is also exposure to LED "blue light," and hasn't noticed problems there either.
- Jerry said some people who are affected by LED light are using "**shooter glasses,**" which are yellow tinted glasses. Alice said that she has checked into this and there are glasses that block various percentages of the blue light – 50%, 70%, 90%, etc, but she would not be wild about wearing those to a dance.
- Lin asked if all LED is "blue," and **Lorraine responded that in the last year Apple and some others have come out with a yellow tint that modifies the LED** on tablets so that you can read at night without the sleep disturbance caused by regular LED. Alice said that studies have shown this to help, but not to eliminate the problems, and it is still recommended that we avoid all LED light at night. **LED is light based on a wavelength that is not in natural light, so our eyes did not evolve to handle it safely.** Lin said he went through his house and replaced everything with LED and has not noticed any problems. Bill Randell (the one who donated the \$100) said he has to wear sunglasses dancing because the florescent lights bother his eyes, while LED lights do not. Margaret said her eyes bother her at Walmart and at the Square Dance Hall, and she thought it must be the florescent lights, but her eye doctor said no.
- Jerry asked Bob if he has gone to all LED in his house, and he said no, just in some areas. One of his LED's is tinged and is not so bright.
- Jerry and Bob are concerned that **florescent bulbs like the ones we use are are being phased out** and will not be available much longer. We could have to switch to a different type of light bulb, which would require changing the ballast and would be expensive.
- **Sheri said that our "average" PNM bill is approximately \$600 a month,** although it is currently much higher due to summer use of air conditioning. Bob said that LED's use much less power than florescent, and there are "soft" LED lights that don't have the "blue" glare. Jerry said that Ed was bringing some samples and could probably show us different tints.
- **Lorraine brought out the info on fans** that she provided to the Board previously re types and costs. Bob found it hard to read, and Lorraine told him he had it upside down. Lorraine said we should **consider installing the fans along with the LED lights.** Alice agreed, and Jerry said we can ask Ed Carr about installing the fans along with the lights. We might want to **consider having two switches for the fans so we could turn on only half of the fans at a time.** Bob said there is 6 feet of space between the ceiling and the roof, which creates a problem for mounting fans.
- Alice said **any platforms or lifts used to install LED and /or fans could damage the dance floor** and we need to make sure that the floor is protected. The floor is irreplaceable due to the cost of real wood.
- There are a lot of issues to consider if we change to LED. Lin said that there is nothing here that a little bourbon wouldn't help with.

Ed Carr arrived at 5:25. He brought in an LED light panel and worked on setting it up until 5:40, then gave a presentation and answered questions.

- LED would bring us **down to 50 watts** per fixture instead of the current 150 per fixture.
- **PNM would pay a significant portion** of the installation costs for LED at the Hall.
- LED lighting **does not produce heat**, which should help with air conditioning bills.
- **Labor** for the installation is fairly **inexpensive** because LED are simple to install.
- **Could we dim the lights? Yes, if Ed installed wiring and dimmer switches.** All the lights could be on one dimmer switch, although we would **probably need at least two switches** since there are two sides to the Hall. Lin thinks it would be worth it to be able to dim the lights. Lorraine said that some of the clubs use only the hanging Christmas lights because they want a more mellow atmosphere. We don't want anything brighter than the florescent that we already have. Bob said the one place we could use a **brighter light is over the food table** in front of the ASDC office door. Alice said dimmer switches might eliminate the need for the Christmas lights, but Sheri said no, the clubs that use the Christmas lights want that specific type of lighting and it would not be the same. **Ed said wiring would have to be run from each light to the dimmer switch, and it would probably take a day of labor to do that.** He is not sure whether PNM would help to pay for dimmer switches, but considers it a possibility if it lowers the power usage.
- After much discussion we determined that the new lights on the roof cost \$1,565.00, we paid \$983.00, and PNM paid \$582.69, or approximately 1/3rd of the cost. The parking lot lights are a big success.
- **We have 28 lights to remove, Ed estimates we could get plenty of light by replacing 20 of those.** Sheri wants to know how much it would be per light if we decide we need more than 20. Ed said his computer program allows him to enter different versions for bids, so it is not a problem for him to add or subtract items to the bid. **Sheri wants a bid for up to 28 lights just in case.**
- **Jerry asked Ed if he knew anything about LED light at night affecting people's sleep,** and Ed said he was not up on that, but that the newer LED lights do have a more natural light which reduces the effect on the eyes. The lights he would install would be **5000 kelvin**, which gives better color rendition and more natural light. Sheri said Alice probably gets too revved up dancing, using so much energy that she needs more time to relax to be able to go to sleep, and that is the problem more than any type of lights. Jerry suggested Alice spend a little time at a bar and then a hot tub after dancing, but Alice thinks that would take way too much time.
- Jerry wants a **separate bid for the dimmer** if we decide we want that. Lorraine added that we also need a **bid for the fans.** Jerry explained that we are interested in fans because our refrigerated air bill is so high. Lorraine said that we want fans only over the dance floor, not the sitting area, with **six fans on the large side and four on the small side**, with 56 or 60 inch fans. Lin wondered if we could get fans with lights on them, so that clubs wanting lower lighting levels could use just that. Lorraine said no, she doesn't think you could get industrial fans with lights. **Jerry requested an estimate on the fan installation also.** Ed said we can get fans like Lorraine is showing us at Granger's or online, fans are around \$79 for the fan and \$30 for the installation kit, per Lorraine's info. Bob advised Ed that there is six feet of space above the drop ceiling so that has to be an issue for mounting fans.
- Jerry said that we can **discuss the estimates we get from Ed at the next meeting (Oct 1),** or we can have another quickie meeting before then.
- Ed Carr said he would **install one LED light for us as a sample,** and Bob requested that it be over the "food table" on the large side. Ed and Bob will meet at the Hall during the week to get that done. In the meantime Ed will leave the sample light he brought with him in the ASDC office closet.
- **Ed will prepare an estimate for us,** including the rebate we would get from PNM.

We thanked Ed for coming in to give us the demo and information on the LED lights.

Sheri mentioned that **someone is stealing the soap dispensers** from the men's restroom, and it happens during weekends. We should notify the clubs. Lin said we need to post a notice that the soap dispensers are rigged to explode when removed. On this happy note the **meeting was adjourned at 6:01.**