



Minutes City of Tempe Sustainability Commission January 11, 2021

Minutes of the Tempe Sustainability Commission meeting held on Monday, January 11, 2021, 4:30 p.m. at a virtual meeting on MS Teams, through City Hall, 31 E. 5th Street, Tempe, Arizona.

(MEMBERS) Present:

Kendon Jung (Chair)
Ryan Mores (Vice Chair)
Barbie Burke
Sukki Jahnke

John Kane
Steven Russell
Gretchen Reinhardt
Stephanie Milam-Edwards
Anna Melis

(MEMBERS) Absent:

Katja Brundiers

City Staff Present:

Braden Kay
Grace DelMonte Kelly
Ausette Anderies
Marilyn DeRosa
Steven Methvin
Ed Bond

Guests Present:

David Sokolowski
Lauren Kuby, Council member
Rubben Lolly, City of Phoenix
Ariane Middel, ASU
Karen Apple, City of Phoenix
Caryn Potter, SWEEP
Catherine O'Brien, SRP
Kathy Knoop, APS

Chair Jung called the meeting to order at 4:30 p.m.

Agenda Item 1 – Public Appearance

Chair Jung asked the guests to introduce themselves. David Sokolowski introduced himself and provided comments on agenda item 5. He said:

- Electric vehicles need a lot of resources (car chargers) to decrease range anxiety. But these new stations may incentivize EV users to drive more miles

- This goes against equity goals
 - EVs are more commonly owned by privileged people
 - Not an equitable solution
 - Reducing car use and reducing congestion is more important

Agenda Item 2 – Approval of Meeting Minutes

Chair Jung introduced the minutes of the December 14, 2020 meeting. Commissioner Burke made a motion to approve the minutes with edits. Commissioner Jahnke seconded.

Motion: Commissioner Burke

Second: Commissioner Jahnke

Decision: Approved 9-0

Voted to Approve:

Kendon Jung (Chair)
Ryan Mores (Vice Chair)
Barbie Burke
Sukki Jahnke
John Kane
Gretchen Reinhardt
Steven Russell
Stephanie Milam-Edwards
Anna Melis

Motion Passed 9-0.

Agenda Item 3 - Cool Pavement

Edward Bond Jr., City of Tempe, Rubben Lolly, City of Phoenix and Ariane Middel, ASU, are working together on a Cool Pavement pilot project in City of Phoenix.

Cool self-pavement

- What is it?
 - High-performance asphalt base seal
 - Lower surface temperatures
 - Reflect heat
 - Increase the life of asphalt 5-7 years
 - Can be used on existing streets
- Why use it?
 - Reducing urban heat island effects
 - Particularly in developed areas with higher temperatures due to surrounding infrastructure
 - Pavement reaches 150 degrees (F)
 - Heat islands can affect dense areas
 - Increased demand for AC
 - Increased pollution

Ruben Lolly, City of Phoenix, said:

- City of Phoenix Pilot Project
 - The first time the City of Phoenix is exploring the use of cool pavement
 - Collaboration between the City of Phoenix, ASU, and other partners
 - Light-colored sealant
- Goal
 - Find a tool that is effective in decreasing the heat island effect and urban heat issues
- Current use
 - It has been installed in the Picasa district
 - On local streets - good condition
 - 36 miles installed in the pilot
- Results
 - Encouraging
 - Measured a 13-degree reduction (average)
 - Solar reflectance 3.5 (versus 1.1)
 - Residents like the product

Ariane Middel, ASU said:

- Impacts of cool pavement
 - Surface temperature
 - Air temperature
 - Durability of pavement
- One year-long project assessment of impacts
 - Measurement tools
 - Electronic 'cart' that measures radiation
 - Air temperature distribution
 - Temperature sensors inside the pavement
 - Resident survey - citizen perspectives

Ruben Lolly - Moving forward in Phoenix:

- Looking for tools to address the urban heat island effect
 - Trees
 - 'Cool Roof' technology
 - Continue looking for tools to address the urban heat island effect
 - Cool Pavement (evaluate effectiveness over one year)
 - If the pilot is successful, further implementation can follow
 - Continue to work with partners
 - No immediate plans to install Cool Pavement in Tempe
 - Monitor results from Phoenix
 - Make decisions based on the results of the pilot program
 - Effectiveness
 - Public perception

Commissioner Questions:

Q. When will the data be available?

- Currently crunching the numbers
- Fieldwork completed in summer
 - Halfway through 'number work'
 - Still doing measurements
 - Continuing throughout the winter and late spring
- Finalization beginning early to mid-summer
 - Concluding in October

Q. Preliminary research - How it is for pedestrians to walk on the cool pavement?

- Essentially converting the road into a concrete sidewalk

- Reflective pavement
 - Almost looks like concrete
 - Like walking on a sidewalk
 - No dark asphalt
- Q. What was the location of the case study?
- 8 districts
 - Garfield
 - Maryvale
 - Close to west campus of ASU
 - (Maps can be forwarded upon request)
- Q. Are test locations residential, commercial, or both?
- Almost All residential

Agenda Item 4 - Sustainability Commission Department Conversation

Deputy City Manager Steven Methvin introduced himself and Engineering & Transportation Direct Marilyn DeRosa.

- Marilyn DeRosa said:
 - Engineering Department
 - Some areas overlap with sustainability efforts
 - Use overlap to find a new way to introduce sustainability
 - Building capital projects
 - Behind the curve with the Fire Station 7 project
 - Challenging to build sustainability into that project
 - Commission has not had an opportunity to collaborate because planning and budget design takes a few years
- Currently in a cycle of projects that aligns with Tempe sustainability timelines
- Moving forward
 - More opportunity to pilot projects
 - Green building code
 - Including design features (sustainability)
 - Current projects
 - Vision zero a public safety
 - Increased communication between sustainability and transportation commission
 - Shade and climate shelter projects

Steven Methvin said:

- Five council priorities (100 performance measures)
- Before the budget process, the city council helps us prioritize a few of these
- Start tool → helped prioritize 10 performance measures and sustainability was included

Braden Kay said:

- Carbon neutrality goals - an opportunity for collaboration
- Clark park pool presentation
 - Engineering played a huge role as to why sustainability was incorporated
 - Engineering matching the sustainability practice can be very powerful

Commissioner Questions/Comments:

Chair Jung said:

- Highlight actions
 - Adoption of IGCC green building code
 - Addition of resilient energy hubs

- Scaling partnerships/pilots
- Transportation demand management
- Options - multimodal and low carbon options
- Clark park
- Culture catalysts
- Pushing programs policies

Commissioner Reinhardt said:

- Mile grid for bicycles
 - Having effective bike lanes
 - Completing half-mile grid - dealing with borders and obstacles
- Bridge upstream of Tempe Town Lake - the Rio Salado plan did not include bicycle and pedestrian infrastructure
- Critical ideas are not being automatically incorporated into places where they are needed
- Disproportionately affect low-income populations

Steven said:

- We have tried very hard to include engineering leaders
- Yes, there will be more collaborative efforts

Commissioner Questions:

Q. With the new builds moving forward - With all the building going on, when will the city start working with the builders on green building codes?

- Some new buildings on ASU campus are LEED certified.
- Community Development is coming to discuss the International Green Building Code in March
- Working towards green building code to be available voluntarily
- We need to experiment with it as a city
- Pilot to policy challenges

Agenda Item 5 - Community Partner Electric Vehicle Updates from City of Phoenix, SRP, APS & SWEEP

Karen Apple, EV program manager at City of Phoenix, said:

- EV Programs
 - In process of developing Climate Action Plan
 - Achievements/Goals
 - Carbon neutral by 2050
 - Waiting for community input
 - Lead by example
 - Improve air quality
 - Affordability and livability
 - Remove barriers to EV adoption
 - Charging stations needed
 - By 2025 - 34,000 EVs registered
 - Where will chargers be needed?
 - 2000 charging stations
 - 2020 EV projects
 - 6 light-duty sedans in the City of Phoenix fleet
 - Take charge Arizona

- Public use chargers exist
 - Education and outreach
 - EV webpage
 - Demos, webinars
 - Increase in EV fleets
- Green sustainable Fleets plan
- Collaborative purchasing plans - lessening upfront costs
 - Leasing options
- EV charging stations
 - Develop a 'city charging study'
 - How to maximize the benefits of charging stations
- Educations and outreach
 - Continue to partner with ASP and SRP
 - A detriment to EV adoption is education and outreach
 - Conduct more EV events
 - National drive electric month (September)
 - Local dealers
 - Train sales staff
 - Not to dissuade buyers from electric cars
- EV equity programs
 - Rebates, vouchers, low-income, minority population
- Implement EV-ready building codes for new properties (families, businesses commercial, and residential)
- Partnering with Tempe
 - Developing an EV charging program in the City of Tempe
 - Ride and drive events
 - EV website information
 - EV ready building codes
 - Use all available resources

Q. How are you removing barriers to EV building codes?

- Getting concerned that we need to reach out to the building organizations
- Needs more backing of industry professionals
- Some to a percentage of EV readiness can be expected

Catherine O'Brien, Electric Vehicle Lead at SRP said SRP Sustainability program:

- EV strategy
 - Enable support of 500,000 EVs
- Different sectors play into how to obtain goals
 - Policy, innovation, and outreach
- Programs and initiatives
 - Charger rebate
 - EV charger rebate for businesses
 - \$500 increased to \$1500
 - Workplace charging
 - EV ready building codes
 - Some customers are becoming 2-3 EV households
 - EV building codes need to be mandated by cities
- Better air quality and environment
 - Homebuilders will start communities that are looking for EVs
- DC fast charging test site
 - SRP owns and operate

- What does it look like for customers? (cost, infrastructure)
 - Needs a better sense of what kind of loading this is and how it might affect the grid?
 - New technology we need to better understand (reliability)
- Dealership training and education is needed
 - Dealerships make more money on the services of engine maintenance
- Education, training, and tools for selling EVs
- Rebates for customers who purchase and register their vehicle
- Municipal technical assistance
 - What does it mean to put in charging infrastructure?
 - Moving infrastructure forward
- Analysis of best areas to implement charging stations
 - Finding gaps and filling them

Kathy Knoop at APS said:

- We need mass transit in addition to EV while reducing miles travel
 - 2030 - carbon-free
- Solve climate issue
 - Transport huge part of pollution
- School busses
- Light-duty electric vehicles

Where to put in charging stations?

- Different use cases - in future
 - More electric cars with higher mileage
 - Charging once a week
 - Will charging stations be outdated in the future?
 - No, the technology will not be
 - 60% reduction in CO2 emission when using electricity
 - Coal power being replaced
 - APS 'Take Charge AZ'
- 8 ports
 - APS installs charging stations and takes care of them for 5 years and then transitions them to the owner
 - Helps people and business owners learn about the technology
 - 88 cities energized
 - Charging plazas added in Northern AZ
 - To reduced range anxiety
- Discounts for home charging stations
- EV ready incentives for construction

Karyn Potter, SWEEP said:

- SWEEP promotes public interest
 - Advancing energy efficiency
 - Transport electrification
- What can we do to reduce greenhouse gas emissions in the transportation sector?
 - Saving money and energy to help consumers
 - EV transition - smart use of transportation systems
 - Reduction in miles traveled
 - Improving multimodal transportation systems (and cycling)
 - Initiatives (AZ corporation commission)
 - AZ legislature
 - Policy actions
 - Incentives - to reduce the cost burden

- EVs are to achieve cost parity - in 2024
 - Charging infrastructure - increase the availability
 - Building codes
 - Actions to help Tempe
 - Transportation-electrification
- Low hanging fruit (actions)
 - EV building codes examples - <https://swenergy.org/transportation/electric-vehicles/building-codes>
 - Equitable and accessible
 - Reduce the cost of implementation
 - Implementing this in existing buildings is more difficult and expensive
 - New buildings are easier
 - Other options
 - Designation for charging station
 - Signs and direction vary significantly, and this can be confusing
 - Streetlight and right of way charging
 - Incorporate EV charging stations into the existing street lights and electric uses
 - City fleet targets for local government
 - Striving towards larger goals
 - Ambitious goals lead to ambitious planning
 - Group buy programs - anyone who wants to make technology cheaper for everyone can
 - Solar energy produced during the day (charging during the day)
- 80 percent of business do not own the building they are in, makes implementation difficult

Agenda Item 6 - Sustainability Awards

Chair Jung said:

- Everyone reach out and call someone they have not reached out to recently and see what they are up to sustainability wise
 - 2 nominations per commissioner - do not worry about duplicate nominations
- Social media post for sustainability award

Agenda Item 7 - Housekeeping Items

Follow up and discussion on last week's joint Neighborhood Advisory Commission Meeting.

Agenda Item 8 - Future Agenda Items

There were none.

A motion was made to adjourn.

Motion: Commissioner Milam-Edwards

Second: Vice Chair Mores

Decision: Approved 9-0

Voted to Approve:

Kendon Jung (Chair)

Ryan Mores (Vice Chair)

Barbie Burke

John Kane

Gretchen Reinhardt

Steven Russell

Stephanie Milam-Edwards

Anna Melis

Motion Passed 9-0.

The meeting was adjourned at 6:30 pm.

Prepared by: Ausette Anderies

Reviewed by: Grace DeMonte Kelly