What should be included in South Australia's new Climate Change Strategy?
Notes from Stakeholder Workshop: Adelaide CBD, Thursday 8th October 2015

Objective of workshop
To seek input from industry, government and the community in the development of the Climate Change Strategy and Carbon Neutral Adelaide action plan.

Desired outcomes
- Increased stakeholder awareness of the objectives and process for developing the new Climate Change Strategy
- Stakeholder input/views provided regarding what should be included in the strategy, including input on innovative solutions for climate action, state-wide priorities for action in relation to adaptation, an industry-led low carbon transition and government leadership

Workshop principles
- Accessible for participation by stakeholders with varying levels of skill, knowledge and expertise
- Conversation based workshops which promote 2-way dialogue between all stakeholders
- Whilst conversation based, workshops include clear prioritizing of issues/topics raised

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What should be included in the new SA Climate Change Strategy?

Small group conversations enabled participants to talk about what they felt was important to be included in the strategy. Participants were guided through a series of questions and the notes were made by each small group and are included in section 2.

As a result of these small group conversations, participants were asked to write down their top three individual priorities that they would like to see included in South Australia's Climate Change Strategy.

1. Priorities for inclusion in South Australia's Climate Change strategy

LEAD

- Free Public Transport and more suburban transit carparks ~ paid for by a public levy. Benefits:
  - Get commuter traffic off the roads – less carbon emissions.
  - Frees up the road from grid lock – businesses can be more profitable and create more jobs.
  - Low income earners and disabled can be socially engaged.
  - Mental health problems ~ $ burden on public health care ~ those funds can then be diverted to economic /innovative strategies.

    - Children/teens will be more autonomous/fitter.
    - Whole community will walk more ~ reducing obesity ~ health budget burden and increase worker productivity and increase mental health of whole community.
    - Encourages urban density rather than sprawl onto farm land.
- 100% renewable ASAP.
- Educating to living sustainably and reduce ecological carbon footprint.
- Become 100% renewable ASAP ~ incorporating Carbon Storage Technology with storage (even before it is the most economical).
- Provide more community education to understand Climate Change and the realities it creates.
- Biomass power station in Port Augusta with cereal biomass from York, Eyre Peninsula and Mid North and carbon sequestration in depleted fields in the Cooper Basin. Negative emissions.
- Biomass to liquid fuel plant based in Mid North or York or Eyre Peninsula.
- Councillor position for clean tech/carbon neutral.
- 100% 2030 renewable momentum.
- Priority One: Better communication (by being innovative) to raise awareness of what is happening/already done by SA in terms of Climate Change.
- Priority Two: Political activism ~ Elect a government that in itself understands Climate Change, and invest in the future.
- Government to listen then act. E.g. Building regulations ~ double glazing, water tanks, solar panels and eaves. Don't reinvent the wheel use what is happening elsewhere.
- Planning and Design Standards that actively recognise and address adaptation and mitigation in built environment and protect natural environment.
- Dramatically increase renewable targets.
- Have an active sustainability officer in every large business organisation. Reason being a voice in influencing organisations.
- Public tracking and monitoring of progress against targets.
- Decentralise Adelaide – i.e. make Port Augusta the eco efficient 2nd city of South Australia. (Tap into existing transport, water and power infrastructure networks.)
- Forum for tripartite discussion.
- Review NEMMCO agreement with Climate Change benefits for electricity supply across Australia.
- Ownership by people (people power) of Climate Agenda. Require Government (our servants) to implement.
- Building community coalitions which include State and Local Governments, business, community groups and education institutions.
- Strong incentives.
- SA could be a world leader in Hot Rock Power Generation.
- Priority One: Long term perspective/goal investment for 100% renewable.
- Priority Two: Community: education; involvement; action and power.
- Active, resourced Climate Change response groups across regions. (Business and resident and government deep commitment and representation from senior policy and public sector).

- Carbon reduction targets and policy in legislation.
- Renewables - 100% for SA to be world leader. Dismiss nuclear fuel cycle.
- Building construction standards ~ compliance checks (both commercial and residential).
- Increased (or new) standards for building inclusive ~ city cycle, energy efficiency and thermal comfort.
- Investment in education of the Australian Community on Climate Change science, its importance for future generations.
- Incentive, compliance.
- Urban planning – Development Act and Building Codes.
- Clear blueprint of easy-to-adopt actions for business. So we all don't reinvent the same wheel.
- More investment and engagement with local communities in regards to adaptation, renewable energy, investment and their vision and to transition and encourage.

REDUCE

- Urban farms and markets to reduce food miles or build community connectivity.
- Reduce consumption of meat and dairy to ensure fewer methane emissions. Minimise advertising of meat/dairy products.
- Litter: litter stations; cigarette but tax; transport ~ our free city.
- Pumped storage ~ hydro.
- Recognise Green Infrastructure into all Government (all tiers) projects as a MUST HAVE component of design and built outcomes and commitment to measure/maintain.
- Price on carbon.
- Public transport system investment.
- Rapid, widespread decarbonisation through energy descent, efficiency, reduction and investment in renewables at public and industry levels. Incentives.
- Audit local energy use. Where is the most used? Review those activities to improve efficiency and safety.
- Decrease consumption through increasing public transport, building codes ~ individual responsibility.
- Energy conservation.
- 100% renewable energy for the state.
- Communities to be aware of Climate Change and their actions to problem, lifestyle and choices.

ADAPT

- Provide a 10 year Waste Levy forecast to reduce ambiguity and encourage investment in alternative to landfill such as waste-to-energy/energy from waste.
- Focussed towards restorative principles instead of zero energy. Reason - This will make Adelaide more resilient, macro strong, create innovation, set <u>new</u> standards of sustainability.

- Widespread reforestation/greening of urban environments for biodiversity – cooling and social wellbeing.
- Keep the focus on behavioural/cultural change for adapting our lifestyles to be more sustainable.
- Acknowledge the damage that methane (from animal agriculture) causes and its impact on Climate Change. Adapt lifestyle accordingly.
- Renewable energy.
- Increase connectivity and transparency between general public and government ~ make goals assessable to everyone that wants to join. Create network to easy ADAPT to effects and problems from Climate Change.
- Use the resources, knowledge and ideas that already exist within society effectively e.g. electric vehicles, green strips ~ used to grow food and provide habitat.
- Large revegetation projects on a grand scale e.g. Greening Australia's approach to help our biodiversity survive future threats.
- Research, innovation and economic growth.
- Adaptation and planning for future generations.

INNOVATE

- Prioritise Research & Development and seed funding for power system components for profitable consumption of excess clean electricity, thereby taking the excess out of the National Electricity Market, benefitting South Australia in lieu of dumping (at both green grid 2010 and 2011).
- Set up crowd-funding model with government matching schemes to drive accelerated innovation of commercialisation in low carbon technologies.
- Implement the ideas of the Integrated Transport and Land Plan 2013 using government bonds ~ good debt.
- Nurture non-government innovation groups using social media to promote ideas, innovation; inclusion and investment.
- Implement motion lights in all urban areas to cut down on energy usage.
- Improving transport to/from satellite cities to decrease vehicles on roads.
- Government support to small business and small community groups that are interested in innovative and support carbon goals.
- Research & Development of new innovating technologies to facilitate a low carbon Adelaide.
- Industry and business support involvement in Climate Change Strategy.
- Introduce a commission for sustainability. Use EPA funding and close that office. Survey community support via digital systems.
- Large solar plant in rural SA.
- Community and industry incentives for adaptation of renewables or for reduction in energy use.
- Procurement processes of state and local government to require goods and services that demonstrate low emissions/climate change adaptation outcomes.
- Public website for 'live' CBD building energy consumption for carbon and kilowatt hours.
- Renewable energy and innovation hub at Port Augusta.

- SA should become an early adopter of globally developed low carbon technologies.
- Be bold in our initiatives be global leaders and innovators – no regrets.
- Consolidation of knowledge and ideas generated.

Something Else:

- Marketing of finance for energy efficiency upgrades.
- Ensuring appropriate resources are allocated at all levels of government to implement the Climate Change Strategy.
- Communicate Climate Change context knowledge to community/leaders – physical reflect in day to day decision making.
- Long term (not 3 year terms) commitment to bipartisan and policy.
- Provide incentives (rewards) for individuals, businesses, government (State, Local & Federal) that contribute to the State's Climate Change improvements.

2. Notes from Small Group Conversations

2.1 LEAD: What does it mean to you for South Australia to be a leader in taking action to respond to climate change?

Table 1 notes

- Encourage revegetation with endemic native plant species in urban green spaces – and community gardens for food sources. Harness storm water to supply irrigation to gardens.
- Set up incentives and policy for industry. Use of knowledge and skills within existing industry and population.
- Strong investment in Public Transport and Renewable Energy.
- Incentives by government to groups etc., who want to do the right thing.
- Survey of community for issue and engagement – feedback.
- Building for the long term.
- Businesses – double wrapping of food items – packaging.
- Surveys of local species and environment; increase engagement of local community & NRM; Arid Recovery.
- Councils to make better species choices for street trees i.e. us fruit trees and native species to support birds and insects.
- Communities produce own food. Council to plant fruit trees.
- Partner of NGOs, business and community.
- Encourage leadership by communities.

Table 2 notes

- Lead liveability - apply technology, knowledge, new economy, renewables, energy efficiency, sustainable urban design.

- Leader in pump storage hydro.
- 100% re stable electricity prices.
- Our survival competing with Eastern States.
- Set higher renewable targets.

Table 3 notes

- Setting sustainable benchmarks for products (governments, suppliers and customers).
- Government grants for start-ups or community groups.
- Investment in research by government.
- Government to provide for research funding for renewables.
- Facilitate crowd funding for green projects in SA.
- Government to provide simple and clear objectives to help small business uptake renewables.
- Government not to subsidise industries instead: advisory; facilitative; streamline the ability to run the business and not get bogged down in complicated compliance paperwork.
- Government to increase awareness and foster Benefit Corporations.
- When residential and commercial properties transact (for sale) they must have a green star report card so buyers know what they are buying: re value for money; they are able to make better informed buying decisions; motivate vendors to improve their building to make it more attractive to buyers.
- Good planning in Adelaide: concentration of sports facilities, accommodation, government departments; self-sufficient developments ~ off grid electric systems and rain water tanks.
- More stringent building codes: passive solar and Star rating.
- Actively foster co-housing for mixed income households.
- Incorporate a social dimension into our measures of success (e.g. Benefit Corporate orientated).

Table 4 notes

- Public Campaigns – Transport Accident Commission (TAC) shaming.
- Industry standards and compliance checks.
- Leadership defines it as a ‘must have’ no longer ‘nice to have’ (Climate Change response).
- Government nurturing community progress instead of ‘taking over’ by fostering community nodes.
- Legislation that protects positive decisions.
- Behaviour change to changing lifestyle. Community and individuals are responsible for their own behaviour.
- Be willing to back the decisions they make for the greater good.
- Needs to be a groundswell from the people to put pressure on the government.
- Leadership means energy/time focus on advancing, outcomes not getting it into the brief.

- Potentially bipartisan support.
- Remove 'Politics' from the actions and discussion.

Table 5 notes

- Promote SA commitment, benchmark and performance on the global level in a meaningful way.
- A better future.
- Developing education programs to encourage the community to be responsible, accountable and committed to Climate Change.
- Continue with decarbonisation of the economy to become competitive e.g. closing of Leigh Creek.
- Promote awareness of the hidden cost to protecting/conserving the environment.
- Progress, direction, commitment, responsibility, maturity, accountability and ownership.
- Manageable population, geographic size, demographic to test new initiatives and benchmark.
- Acknowledge that SA has a unique position in the demographic and economic status that can build strength to our leadership approach.
- Responsibility –5E's:
    - Encourage change of habits.
    - Educate – all ways from kindy to Aged Care.
    - Engage – always with the community.
    - Engineer – hip pocket expenses.
    - Enforce – implicate change of behaviour.

Table 6 notes

- Create opportunities for grassroots leadership to emerge.
- State seen as innovative leader ~ attract investment in clean, green industry.
- Flatter structures ensure wider range of people involved re Aboriginal people.
- Attempt to move towards a 'steady state' economy. Move away from growth paradigm and consumption of materials.
- Is SA leadership important? Need flatter political system with grassroots involvement.
- Today is an example of grassroots leadership.
- At what point do we start to consider our role in exporting resources?
- Increased education/communications in public media to make Climate Change and sustainability more visible and better understood.
- New buildings – offices and homes in Adelaide are more efficient – less waste and less use of energy.
- Stronger focus on Climate Change education in curriculum.
- Murdoch Press not assisting with carbon reduction – needs to educate the community. Lack of community engagement.
- Role of media needs to be challenged.

- Steady State economy growth. How do we define economic growth – increase in wellbeing.
- Climate Change needs to be a higher priority in schools. 'Nay sayers' are given equal value as believers in Climate Change.
- Need to encourage greater involvement ~ industry, businesses coming to SA. Strengthen SA. Example – LEAN (Labor Environmental Action Network) educate, consult leads to outcomes, emissions targets.
- What is leadership?
- Use leadership to attract people to the State.

Table 7 notes

- Start biomass power station – fund first one.
- Business opportunities.
- Geothermal – build first power station.
- Attract good people to SA.
- Pride.
- Carbon neutral state. Negative emissions for state.
- Change Port Augusta power station to biomass.
- Move research and development so business opportunities will be created.
- Build on specific SA advantages.
- Government needs to champion the cause and then leaders from industry etc., will come forward and innovate etc.
- Personal value.

Table 8 notes

- Create settings for Research & Development, but not invest in technology – risky.
- Tax incentives for Research & Development.
- Selling the message – telling the stories.
- Early planning for industry transition.
- Having an established cross-sector forum.
- Some steps unique to some regions and not others.
- Government supporting innovative technology being developed in SA.
- Issue of trade-off between cost and local product for procurement.
- Would like a formal environment for government, including community, to talk.
- If we already are a leader, we haven't shown this to other states.
- Reputation for the government.
- Having a focus on regions.
- Government encourage yes, but industry needs to invest.
- Incentives.
- About convincing community to take action in science.
- Investing in local manufacturing of renewable technology.

2.2 ADAPT: How can government, communities, businesses and individuals work together to prioritize and fund activities that build our resilience to climate change?

Table 1 notes

- Heat wave adaptation.
- Shelters for elderly at bus stops etc.
- New crop species.
- Building; Upgrade; Finance – 3 way.
- Soil management.
- Urban planning to cope with heat; building codes.
- "Heat Island" reduction.
- First identify the cause of the 'Change'. Do not ignore aerosols particulates.
- Bushfire response.

Table 2 notes

- Local systems – distributed energy systems.
- Improve water conservation in suburban streets.
- Local agriculture community gardens and farmer markets.
- Improve water use through community connecting.
- Strategies for reducing water use. Urban spread.
- Research new agricultural market opportunities.
- Building community connectivity.
- Change subdivision design – lighter footprints.
- Investment – financing for commercial shifting.
- Water – build resilience – small scale desalination plants.
- Don't forget agriculture.
- Bring people together – community gardens and farms.
- Redirection of investment funds to transition.
- Work mode shifts.
- Focus on local use for reduction in food miles and community connection.
- Cultural shift – smaller footprints minimising urban spread.

Table 3 notes

- Deepen existing relationships in the regions.
- Use existing infrastructure for vulnerable people.
- Use existing schemes to match funding.
- Roundtables – take a collective impact.
- Bio security.
- Use existing community service infrastructure to involve vulnerable people.
- Approach all stakeholders at table around a plan over time.
- Government, business, civil society to meet regularly and share what each is doing to ensue no duplication of effort.

Table 4 notes

- Investigate and implement inter sector communication strategies – transparent and encompassing.
- Better infrastructure.
- Start the dialogue – extend to communities.
- Make Climate Change understood, less fearful – see opportunity and hope.
- Offer alternatives to 'dirty' industries.
- Educating the community.
- Building a sense of community to encourage people to meet and discuss Climate Change and mitigation measures.
- State Government funds – research, builds evidence base for climate action.
- Compliance and auditing of energy/greenhouse gas emissions.
- Longer summers ☺.
- Develop focus group with representation from all sectors.
- Opportunities to grow market for climate beneficial products.
- Alternative local produce (or research information).
- Building upgrade; finance initiatives.
- Opportunities ~ development of products in Australia to mitigate climate change. Electric cars at Holdens and solar panels.
- Education programs for migrants and oversea investors in Australia.
- Celebrate the inclusion of education programs in schools to encourage more participation.
- Encourage and resource Local Government to engage with communities on Climate Change.

Table 5 notes

- Offer community funding.
- Agriculture: grow water tolerant crops; work with farmers – use their knowledge.
- "Where does the power come from?" inform communities.
- Solar Thermal large scale e.g. Port Augusta.
- Revisit priorities on NEMMCO agreement for SA and comparison of prices. Nuclear? Dangers/benefits.
- Way in which we engage with the public.
- Encourage scientific discovery, study and development across all fields.
- Explore potential of the Transition Towns movement to develop greater social resilience and foster strong community relations and social practices.
- Smart grids.
- Education of the wider communities.
- Planning – not building on flood plains.
- Adaptation for community along the coastline. Vegetation and ecosystem.
- Policy that stops offshore oil near SA

- Criteria for NEMMCO agreement needs to be reviewed with emphasis on renewables.
- Increase visibility of the issues of Climate Adaptation and sustainability through effective mainstream communication and education.
- "Faith" in government to listen.
- Prioritise adapting ecosystems and species.
- Stop building on sand dunes – sand replacement.
- Social Media ~ connectivity with community and people ~ exposure.

Table 6 notes

- House design.
- Implement integrated transport and land plan 2013.
- Urban street trees.
- Sea level rise – base line information.
- Choice of street trees – fruit trees and/or native species to support birds and insects.
- Use ideas that are there UK: double glazing windows; Germany: transport wind farms.
- Electricity cogeneration – energy from waste.
- Sea water to water (use more).
- Adapt lifestyle and diet choices to minimise meat and dairy in diet.
- Water availability and use.
- Sea level rise ~ advice and discussion of how to address this huge issue.
- Plant more trees.
- Caring for vulnerable people with education in temperature.
- Decreasing carbon footprint as individuals and communities.
- Communities creating own micro grid for own energy use.
- Occupational Health & Safety with increased heat.
- Use urban spaces to provide community gardens watered by harnessed storm water.

Table 7 notes

- Consumer information to advise about lifetime costs.
- River Murray ~ harvest more rainwater from Adelaide catchment; stormwater storage; aquifers; wetlands; aquifers mapping and re-injecting water into aquifers.
- Government to promote: triple bottom line branding and promoting of products made in SA; labelling promoted on supermarket shelves; expand the SA open door logo with some kind of Star Rating System; supply chain, ethical banking.
- What can be done to help people adapt in their own houses? Informing consumers of lifelong cost associated with their home.
- Community and government responsibility to Aboriginal communities in warming centres.
- More street trees to decrease urban heat banking by 4 degrees Celsius; to decrease elderly deaths in heat waves.
- Greater requirement for land lords to insulate energy efficiencies for rental properties ~ incentives and legislative requirements.

- Energy efficiency audit when properties are listed (for sale), to inform buyers.
- Councils to have more storm water run-off swales ~ storm water saving.
- Public awareness campaigns.
- To promote cycling for children and lower speed limits to 40km/h for flow on benefits of shoppers in local shopping areas and local businesses.
- It's not all about commercial success, there needs to be a social success indicator.
- Opportunity to get rid of 'dodgy practices'.
- New industries, innovation.
- Offer rebates for targets.
- Biodiversity fauna corridors – an intrinsic good; increase people recreating i.e. rehabilitate Torrens and all creeks.
- Example sustainable New Zealand.

Table 8 notes

- All new buildings planned to cope with higher temperatures etc., e.g. double glazing, efficient insulation and rainwater storage.
- Running education sessions – collaborate with all parties.
- Team-building; develop technology; reinforce awareness about Climate Change.
- Transport options ~ train-rail; tram; bus; cycle; walk.

2.3 REDUCE: What are the opportunities for South Australia to substantially reduce our emissions?

Table 1 notes

- Feed of animals in regards to methane products.
- Reduce greenhouse gas emissions by reducing meat and dairy in diet and lifestyle. Methane emissions from animal agriculture are many times more damaging than carbon dioxide.
- Minimise advertising of meat and dairy products. Recognise the impact of animal agriculture on climate and environment.
- Building regulations ~ standard for new buildings – double glazing of materials. Funding to adapt buildings. Renewable energy.
- Labelling of 'reduced' 'enviro good'. Needs to be the same. e.g. back of packets states (what about the inside) 'from responsible source?'
- Tree loppers must plant two trees in place of those chopped.
- Scaping of urban environmental community gardens. Promote investment in green technology. Electrification of all rail and expansion. Solar Thermal large scale – Port Augusta.
- Litter stations/depot (UK) for light globes; batteries; timber; glass and cardboard etc.
- Reduce packaging on food and other items – at least make packaging easily recyclable.
- Acknowledgement of different roles of different users: commuter, resident, businesses and investors.

- Cigarette butt 'tax'.
- Transport ~ remove cars from city centre. Electric shuttle bus from station.
- Demonstration Riverbank precinct.
- Planning code changes to properly impose energy efficiency.
- Sustainable agriculture.
- Double glazed windows. North facing home. Eaves. Insulation type.
- No offshore oil. Industry work with community to adapt old buildings.
- MOT on cars[1]
- Cross subsidy funding of clean energy usage in office buildings.

Table 2 notes

- Look at heritage policy to action retro fit – innovative (incentives and penalties) – planning generally.
- Green roofs – also involves community and urban amenity.
- SA can put solar across country.
- Public transport – electric cars (with clean energy).
- Retrofit incentives – defining air temperature %.
- 100% renewable now.
- Get off gas – solar thermal with storage. Not only based on economic factors.

Table 3 notes

- Local energy storage and distribution.
- More storage of solar energy and subsidies for batteries.
- Electric Vehicles – discounted registration.
- More subsidies of micro generation/feed in tariffs.
- Free public transport (funded by government) to get commuter traffic off the roads and enable businesses to be more time efficient and therefore more profitable and will create more jobs. People on low incomes are therefore more engaged in society decreasing crime rates and increasing better health outcomes.
- More electric car parking charging stations.
- Walking and cycling.
- Public transport efficiency.

Table 4 notes

- Facilitate and promote recycling initiatives e.g. building construction and recycled products.
- Encourage building retrofitting via financial incentives e.g. Victoria and NSW
- Strategy – use more recyclable products.
- Five Star Energy Rating. Non-compliance checks on the energy efficiency.
- Promote eco mapping to be used by businesses to assess activity.

[1] The UK Ministry of Transport test (more usually known as the MOT) is an annual test of car safety, including roadworthiness aspects and exhaust emissions.

- Improve design of business activities (Heinz Werner – eco mapping).
- How does government activities compare with private companies?
- Make non-green buildings green
- Reviewing and updating of Greening of Adelaide policies.
- Implement a compliance system to demonstrate compliance with energy efficiency ratings.
- Double glazing of windows. Or use newer glasses – look at Europe's innovation. At sale of house/building statement of energy efficiency be provided.
- Increase use of electric cars and free bikes. Use procured power to include decrease in carbon emissions.
- Initiatives Climate Change Building: incentive owners (i.e. through loans); upgrade greening of Adelaide.
- Audit energy uses to lower high energy consumers.
- Reduce city car traffic i.e. ring routes and city tolls.
- Audit of energy efficiency of houses in City of Adelaide.
- Which businesses are consuming most energy ~ to target the strategy?
- Lochiel Park, Christies Park are examples of low carbon users.

Table 5 notes

- Smarter planning around buses.
- Needs to be driven by both the community and the government ~ top → down; bottom → up.
- Do we need a peer pressure campaign, similar to drink driving, to make being energy efficient the 'new norm'.
- How can we make it cost efficient for those that cannot afford this luxury? Beyond energy has a solution for this on retrofit.
- How are housing developments designed to be energy efficient? Needs more policing.
- Ensure one development does not negate another development.
- High density apartments e.g. introduction of sensor based lights. Make it part of compliance approval.
- Banks need to tailor lending to acknowledge the savings projected over time with reducing utility bills and ongoing costs.

Table 6 notes

- Commercial transport.
- Solar PV fields – 100,000 panels.
- Large scale renewable support e.g. solar thermal plant at Port Augusta.
- Research and Development in battery storage for solar.
- Hydrogen for transport
- Solar PV sites – Port Augusta and Leigh Creek.
- Business incentive to sell solar power back to grid.
- Job creation.
- Greater take up of work from home.

- Geothermal energy opportunity in SA.
- Biomass for fuel for transportation.
- Government incentives.
- Bring back Tindo bus.
- Power walls for PV storage.
- Energy efficiency of community buildings.
- Rooftop solar – government buildings.

Table 7 notes

- Non-carbon transport.
- Green walls – roof gardens.
- Street trees/green walls/roof gardens/street furniture – very positive social impacts.
- Encouraging working from home at least some of the time.
- Green infrastructure ~ revegetation of city for cooling and reduction of high carbon, high energy practices. Reduced power/transport.
- 40% canopy cover for city. Recycle water.
- Continue to revegetate parklands, streets and squares for thermal benefits.
- Research required to map coastal/marine sequestration of carbon across the state. Funding? Logistics? Management?
- Liveability of the city – to change behaviours.
- Greater integration of green infrastructure in new and adaptive works.
- Reduction through 'real world' 'practical' reduction of emissions. Not only through offsetting. Offsetting then to be considered for what is left over.
- Offsets emission. Partnership region land managers. Sequestration.

Table 8 notes

- Incentives to commercial sector for using eco-friendly energy. Taxes % exemption.
- Financing mechanism to enable investment in renewable energy.
- Need to consider cost benefit of different partnerships.
- SA Government setting Green Power targets.

2.4 INNOVATE: How can South Australia be the innovator in climate change action?

Table 1 notes

- Visualisation of every CBD building energy consumption on a public website.
- Energy efficient innovations.
- Reduce consumption in exiting old building stock via flexible finance options.
- Create big solar industry.
- More support to knowledge creation by universities – environment technologies.
- Solar panel producers.
- Aim for higher carbon negative emissions.
- Biomass to liquid fuel production.

- Trap more research results from universities.
- Innovate legislation to overcome tenant/land lord and major tenant Climate Change conflicts.
- Cooperative Research Centres (CRC).
- Battery storage.
- Biomass power station.
- Early consideration of business application in innovation process (in universities).
- Making connections between private sector and universities.
- Support for innovation in universities.
- Energy efficiency and Carbon Neutral Adelaide 'low hanging fruit'.

Table 2 notes

- Support commercialisation of ideas and technology.
- Need to reduce barriers to innovate.
- Incentives for new take up of early adoption for new technology.
- Need a strategy to attract businesses to our State to develop our ideas.
- Wooing international green tech companies to SA.
- Government to support local innovation through procurement policy.
- On economic – steady state economy.
- Find more innovative manufacturing 'add value' sectors.
- Eco agriculture offsets from (for example) algae growth.
- Encourage innovative government to reduce perverse outcomes (e.g. procurement).
- Raise profile of our innovators. Be bold. Carbon Neutral Adelaide leverages.
- Use 'Green tech' brand to attract capital into the state.
- How can we use every South Australian as an advocate for the state?
- Develop methods of draining Carbon Dioxide out of the atmosphere.

Table 3 notes

- Invest in Research & Development (e.g. CSIRO).
- Communicate the impacts to SA of Climate Change to all South Australians.
- SA should become a national leader in renewable electricity ready.
- Storage of renewable energy.
- Innovative funding of projects through community (e.g. KICKSTART).
- Carbon capture and storage on a large scale.
- Have continuity of communication – continuous stories of impacts for SA. Someone in government.
- SA leader in renewable energy generation: Should we become a leader in renewable energy power networks? DC transmission. Energy storage. Decentralisation.
- Create investment opportunities for energy from waste e.g. waste levy to increase transparency and investment certainty.
- Community education of Climate Change. Use innovative Social Media, apps etc.
- Advertise what has been done already in new technology.
- Be early adopter of new energy efficiency technology e.g. LED lighting, new refrigerants for air conditioning and refrigeration.

- Communication of information that we already have – use small state advantage. Communicate impacts and strategies.
- Encourage early retrofits of existing buildings e.g. tax incentives, depreciation etc.

Table 4 notes

- Use knowledge of NGOs.
- Business leaders providing funding for community groups.
- Harnessing the innovators and fresh thinkers and proven idea makers. Merging of the two approaches.
- Create strong policy that encourages innovation.
- Innovative ideas in regards to the management of our natural environment ecosystem.
- Encourage scientific discovery and development in all fields of science, medical, health and environmental.
- Changing engagement mechanisms to engage with communities.
- Leverage Adelaide size, 1 degree of separation.
- Not reinventing the wheel ~ connectivity with different countries that have innovation.
- Support small business innovative ideas and spread them around.
- Community as owners – active – government to give them more voice.
- Hear NGOs projects and perspectives.

Table 5 notes

- Skills IP transfer for other states and countries.
- Set much higher renewable energy targets and much sooner. Be the world leaders e.g. 2025 – 100%. Renew the strategic plan.
- To promote more women and children cycling. Provide public toilets on all cycle routes because women can't pee up against a tree.
- Electric Vehicles – actively promote the reuse of the Holden facility to manufacture electric vehicles and turn the facility into a green tech manufacturing world best practice facility.
- Greater support for Flinders New Venture Institute (NVI).
- Lobby Federal body to use the Snowy Mountain Water Scheme more efficiently for irrigation.
- Rehabilitate Adelaide creeks and indigenous plants.
- Develop battery storages in local areas.
- Opportunities ~ innovative new industries; clean foods for export market.
- Storm water recovery aquifers.
- Pumped storage hydro.
- More water storage dams.
- Battery storage for solar.
- Where there are more cyclists and pedestrians there is a decrease in domestic violence and a decrease in crimes against women.
- Set aspirational targets.

- How can SA be the innovators? More public think tanks/forums. More public engagement to tap into creativity of the public.
- Relevant CRCs (Cooperative Research Centres) in SA.
- Electric bike/tricycle paths.

Table 6 notes

- Listen – Act – Do.
- Building regulations to ensure new buildings are insulated, double glazed windows etc.
- Applied social innovated type partnerships to solving issues.
- Organise more community forums so that ideas can be shared.
- Can we borrow from one industry to another e.g. submarines to waste management, water recycling.
- Develop technologies with sustainability from the outset.
- Link to indigenous cultures (and others) knowledge of adaptation and resilience.
- Be accountable.
- Reduce.
- Community forums.
- Sustainability Officer in large government contracts.
- Leading in Buildings on regeneration – design and sustainability.
- Social innovation: creation of right relationships/communities to work together e.g. Transition Movement www.transitionnetwork.org

Table 7 notes

- Verbal and financial support from the government.
- Invest in research to identify new industry opportunities for SA, educate and train for new industries.
- New revegetation project for community education.
- Look at other sustainable cities.
- Offer incentives and support clean energy. Finance corporation.
- Innovation at a community level, so should we plant different trees for revegetation. Collective approach at community level.
- Look for new best practice examples and highlight those.
- Desalination on a very large scale.
- Need to be able to attract experts in renewables.
- Come up with new ways of dealing with excess energy.
- Encourage and award new ideas and strategies.

Table 8 notes

- Stronger planning controls to encourage the use of sustainable products in building.
- Community based/funded projects.
- Sewage power turbines.
- Increase workshops and collate like 5000 + initiative.

- Zero carbon housing.
- Rooftop and balcony/vertical gardens.

2.5 LOW CARBON GENERATION: What plans or commitments does industry and community have with respect to low carbon generation?

Table 1 notes

- Biomass power generation.
- Port Augusta biomass power generation. Straw from Eyre Peninsula/Northern and Yorke/Mid North.
- Carbon sequestration opportunities.
- Charging stations infrastructure in regional areas i.e. Kangaroo Island.
- Available choices for people to take or do something for the environment.
- Potential impact of domestic level battery storage.
- Leigh Creek – solar city.
- Regional micro grids.

Table 2 notes

- Government fleet policy incentives.
- Incentives for resources industry to get involved.
- Supply and demand considerations into energy retails use in regulation.
- Public register of commitment and progress.
- Incentives for Electric Vehicles purchasing.
- Can councils work more closely together to not compete?

Table 3 notes

- Invest in or own ideas in Australia (commercialise in Australia).
- Storage of renewables: geothermal; battery; pumped; hydro; look at our competitive advantage.
- Support alternative renewable energy; attract and build an industry and not impact technology.
- Germany tested their power grid during the solar eclipse and the network withstood the 'shock'.
- Should we decentralise our electricity supply.
- Support SA research – universities.
- Opportunity for State Government to assist in a low carbon economy research centre. National Research Centre.

Table 4 notes

- Solar renewable production.
- Government bonds for infrastructure – public transport. Good debt.

- Food miles.
- Mass generation using solar large scale plant.
- Local agriculture – invest in.
- Not enough!
- Grasp the location of SA to develop a mass industry with sustainable industries/products.
- Solar car production.
- Bush fire shelters.

Table 5 notes

- 100% renewable energy.
- Invest in low carbon building materials to build energy efficient infrastructure – invest in low carbon industry.
- Engagement and sharing of knowledge with indigenous communities in regards to food and plants.
- Regeneration/decentralisation of SA/Adelaide's population (2nd major city at Port Augusta.)
- Community/Government bonds for infrastructure (with Climate Change outcomes).
- Invest in low carbon Agriculture and Horticulture.
- High speed Electric Rail to connect.
- Invest in locally made products and industry. Electric cars; clothing; food; clear labelling to identify these products.
- Off-shore wind.
- Cooperative research centres.
- Public transport infrastructure. Incorporate into new road infrastructure.
- Community Bonds for infrastructure; superannuation funds – divestment from fossil fuel.
- Pumped storage hydro.
- Tidal. Power – offshore underwater and turbines e.g. UK. Solar Thermal at Port Augusta.

Table 6 notes

- Low carbon design standards – develop industry.
- High school projects to design/create alternatives.
- How government can partner with others.
- Government and industry to support research innovations.
- Government – green infrastructure commitment.
- Research and Development seed funding for systems components for profitable consumption with excess clean energy.
- Truth in labelling – people doing the right thing can get support.
- Government to give incentives/grants to Research and Development of innovative technology.
- Carbon Neutral Adelaide.

Table 7 notes

- Venture capital for Silicon Valley activities and renewables.
- EPA – move to Council for Sustainability Commissioner.
- Emulate Silicon Valley: Hubs; High tech; More Tonsely FNVI.
- Bring community groups together so there is agreement on strategy.
- More micro generation and micro storage. Encourage individuals and community groups to start electricity companies.
- Repower Port Augusta to Solar Thermal. Corina.
- Coordinated, directed community action rather than the small fundamentalist groups.
- Sustainable communities of SA. SA for Climate Action.
- Community alliance (40 or so groups).
- Eco mapping (Europe) to see what we are using and create local action plans.
- Green Star buildings. Solar – mini grid development.
- Actively promote Living Building Challenge buildings.

Table 8 notes

- Community driven energy initiatives. A lot more activity in the community.
- Fund a local Community Energy Efficiency Support Officer to coordinate activities.
- More of the money could be directed towards community initiatives.
- How can we make commercial vehicles and transport more efficient? (Road Trains etc.).
