April 2021

**Climate Resilience and Net Zero Emissions Branch – Climate Preparedness recommendations – Design & Place SEPP EIE**

| Section Ref. | Recommendations | Comments / further information / links |
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| **GENERAL** | **Recommend** increasing the focus on design response to climate change in the built environment in this document.<br><br>**Suggest** that designing for climate change risks should be specifically identified as a priority for the design outcome. | The need for development to respond to specific climate change risks is not clear in this document. The majority of references and proposed controls in support of improved resilience to climate change are presented in the context of a broader "resilience" that detracts from the ability and need to respond particularly to emerging climate change risks.<br><br>Specific climate change risks are known and should be responded to specifically. |
| **GENERAL** | **Recommend** clarifying design benefits to both internal and external environments in climate responsive design strategies. | Reference to "climate responsive facades" appear to be recommended for reduction of Urban Heat. This can be expanded to include benefits to internal thermal performance of buildings as well. |
| **GENERAL** | **Request** that CRANZE be consulted on progress in Residential Amenity requirements related to adaptation to climate affects, Heat, Flood, Green corridors. | Statewide planning and resilience supports a strong response to Climate Risk throughout the State. Suggest DPE is the central repository to monitor state planning progress. |
| **GENERAL** | **Recommend** CRANZE is consulted again for more detailed input on emissions reduction opportunities and controls. | We are currently exploring mechanisms to ensure that developments at all scales – including State Significant Precincts – will demonstrate how they minimise greenhouse gas emissions (reflecting the NSW Government's goal of net zero emissions by 2050) as well as consumption of water (including water sensitive urban design), energy and material resources.<br><br>In our recent advice to the Rapid Assessment Framework team within DPIE, we recommended that at a precinct scale, proponents would outline at minimum how they would address the below |

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| | | points. This information would be stepped out within an EIS / ESD report for example:<br>• the process to identify, analyse and evaluate opportunities to reduce energy use and greenhouse gas emissions (including embodied emissions), water and material resources<br>• estimated greenhouse gas emissions generated by the development in accordance with the Greenhouse Gas Protocol for Project Accounting<br>• calculate estimated volume of emissions (scopes 1, 2 and 3) and mitigation measures during construction<br>• summarise estimated annual and total operational energy use and greenhouse gas emissions over the forecast useful life of the asset and proposed mitigation measures<br>• demonstration of the application of the avoid, reduce and offset hierarchy for emissions<br>• the outcomes of the evaluation and commitments arising<br>• justification for why certain opportunities were not implemented<br>• an ongoing reporting and monitoring framework, including auditing. |
| **Section 2.1 Structure of the new SEPP**<br><br>**Page 11** | **Recommend** that the NSW Climate Change Policy Framework, State Infrastructure Strategy and Critical Infrastructure Resilience Strategy are highlighted as key government policies that the D&P SEPP objectives should be supporting and delivering upon.<br><br>**Recommend** Traditional Custodian engagement and community engagement are encouraged at all scales of development. For recommended scope of 'All Other Development' to comply with this, refer to Schedule 3 of the EPA Regulation 2000. | |

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| **Section 2.3** | **Recommend** that the need for resilience to climate change is clearly explained and clearly identify climate change as being a current as well as future hazard driver. | The current text notes that "*Climate change will exacerbate many … conditions…*" suggesting that it is consideration for the future only, and explains resilience as and element that will *"… enable us to adapt to change …"* and *"… anticipates how we can build adaptive capacity into a space or building …"* which again suggest a future need for adaptation. |
| **Section 3.2.1** | **Recommend** specific reference to a climate change risk in the "resilience risk assessment". | An example of a specific climate change risk is increasing temperatures generally and increased number and intensity of heatwaves. This can be responded to by modelling proposed developments with climate profiles that test thermal performance against future conditions. |
| **Section 3.2.2** | **Recommend** that resilience applied to all scales of development, and not just the Precinct.<br><br>**Recommend** that requirements at all scales build on and leverage existing development requirements, including through EIAs and existing standards. | It is not clear why the broad definition of "resilience" will not be applied to all scales. Climate change will affect new development at all scales and this SEPP is an opportunity to improve design standards at all scales. |
| **Section 3.3** | **Recommend** reference to DPIE Heatwave guidance: Link to https://climatechange.environment.nsw.gov.au/-/media/Minimising-the-Impacts-of-Extreme-Heat---A-guide-for-local-government.pdf?la=en&hash=3B5B1F18685A47D3B40D0CBD2430006D2BB08929<br><br>**Recommend** more detailed reference to DPIE Green Cover guidance: https://climatechange.environment.nsw.gov.au/Adapting-to-climate-change/Green-Cover | This report addresses climate change variables, hazards, impacts and risks well. It will provide an excellent document from which "… residents, businesses, and other key community stakeholders involved in design and place planning can set consideration to climate risk and resilience in design and place setting ." |

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| **Section 4.2** | **Recommend** the use of future climate data files in assessment of building thermal comfort (NatHERS). | There is increasing evidence that current planning regulations are limiting resilient design and that buildings that are compliant today (meeting heating and cooling comfort requirements) will need significant cooling and almost no heating under future scenarios.<br><br>https://www.lgnsw.org.au/common/Uploaded files/Environment/Future_Proofing_Residential_Development_to_Climate_Change_final.pdf |
| ***Section 5.1.2*** | **Recommend** stronger language that LEPS and DCPS are to comply with the Design and Place SEPP as a State-wide Standard. | Current language is ambiguous and does not appear to have any impact on local government planning, which is where the majority of new developments will be assessed. Some councils in Greater Sydney have already taken the opportunity to embed net zero emissions strategy actions into council's planning instruments including Local Strategic Planning Statement (LSPS), LEPS and DCPS through improved building design and net zero commercial building targets. This includes actions for passive heating/cooling, ground source heat exchange, solar installation and water sensitive design. |
| **A2.3 Table A6: 1 Solar Access** | **Support** the reduction of glazing for the benefit of thermal comfort.<br><br>**Suggest** clarifying that there be a controlled "maximum glazing" of 50%. | Future climates will be hotter and reduced glazing areas will improve thermal performance of homes. |
| **A2.5 Environmental Performance** | **Support** the "safeguarding of green infrastructure" through efficient and robust water sources. | |
| **Urban Design Guide B.3.3 Proposed structure** | **Support** inclusion of climate change risks in the design guide.<br><br>**Suggest** rewording the phrasing to "Responding to climate change risks". | As noted above the use of phrase "resilience by design" is appears to be defined such that it includes any potential impact.<br><br>CRANZE suggests that designing for climate change risks should be specifically identified as a priority for the design outcome. |

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| **Urban Design Guide B.3.4 Design considerations** | **Support** inclusion of climate change risks in the design guide. Suggested rewording this point to "responding to climate change risks". | |
| **Section A.2.3** | **Recommend** improving objectives to reduce the compounded risks of heat more thoroughly, and the opportunity to mitigate these through passive urban design, improved thermal performance and building resilience actions. (e.g. minimum standard of building thermal performance without active cooling to mitigate risk to health of occupants in event of heatwave and power/infrastructure failure). | Good reference is made to NSW government climate change data and resources, although some additional guidance material may strengthen the report's recommendations and assist future use of the document. |
| **Section A.2.3** | **Suggest** including recommendations to ensure adequate shading of glazing as well as control of glazing area (glass to floor area ratio) to improve thermal performance in buildings. | Encouragement of shading is good but there is little reference to role of area of glazing in building thermal performance efficiency. |
| ***Section A.2.5*** | **Support** that all buildings be 'EV-ready' - I.e. have the electrical infrastructure in place to accommodate 100% EV charging at all parking bays. | A requirement for accommodation of EV vehicles would help support transition and the Net Zero Roadmap. |
| ***Section A.2.3*** | **Recommend** encouraging improved passive design of residential buildings through the NatHERS rating tool. | BASIX Energy and water targets are listed, but no reference made to the Thermal Performance Assessment component regulated through the NatHERS rating. |
| **Glossary** | **Recommend** including definitions of "Climate Change", "Climate Resilience" and "Climate Change Adaptation". | |
| **Glossary** | **Recommend** clarifying the definitions of "Resilience" and "Resilience by Design" in relation to climate change, and adaptation. | Use of phrase "resilience by design" is appears to be defined such that it includes any potential impact.<br><br>CRANZE suggests that designing for climate change risks should be specifically identified as a priority for the design outcome. |

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| **Glossary** | **Recommend** greater clarity as to the range of design decisions that will be impacted by the SEPP. The current definition of 'Design' describes a process, as defined in the Better Placed policy, which provides a full-page description. This is not very useful for the purpose of risk assessment or evaluation. | |